

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, DECEMBER 15, 1883.

ORIGINAL LECTURES.

REMARKS UPON CLINICAL CASES.

A Lecture delivered December 1, 1883, at the Pennsylvania Hospital,

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[Reported for the MEDICAL TIMES.]

DIPHTHERITIC PARALYSIS, WITH REMARKS UPON ITS DIAGNOSIS FROM LEAD-POISONING.

GENTLEMEN,—The first case to which I will call your attention this morning is that of William S., 21 years of age, a laborer. He was admitted into the ward on the 26th of November. As regards his occupation, he states that he has worked a good deal in lead-works, and about April 1 of this year he was particularly engaged in working in a manufactory in this city, grinding, mixing, and packing white lead. He does not, however, seem to have suffered from any ill effects from the lead; in so far, at least, as there has been no history whatever of attacks of constipation, colic, or loss of muscular power. In August of this year, he had an attack of diphtheria, lasting for two weeks; he then returned to his work feeling as well as he ever did in his life. After working for a week, however, he found himself getting very fatigued at night. He had pains all through his body, and the limbs also, at that time. It seems, therefore, to have been a subsequent phenomenon to the severe sore throat. His symptoms getting worse, he gave up his work at the end of two weeks, to remain at home, though not in bed. Now, at this period there was marked difficulty in swallowing, and he found that liquids returned through his nose when he attempted to drink.

Upon admission to the hospital, what he most complained of was general tenderness and want of power in his limbs. His throat-symptoms were better; he could swallow without difficulty. We could detect no blue line upon his gums; but what was particularly noticeable, and what particularly brought him here for treatment, was that he could scarcely stand upon his feet, and was not able to walk at all. We found that this loss of power was not confined to the lower extremities, though it was there more marked; there was also loss of power in his arms; he had a weak grasp, and things would drop out of his hands. The

right hand showed rather more loss of power than the left. He has had no evidence of facial palsy; he was not constipated; his tongue was moist and slightly coated, and marked by the teeth. The lungs were normal. The first sound of the heart was weak, and there was a faint blowing systolic murmur; the second sound was distinct. The liver and spleen were normal in size.

He has only been in the hospital since the 26th of November, but in these few days he has been decidedly improving; though what brought him here, the loss of power, in the legs especially, is still a very prominent symptom. We will test the matter for ourselves. I have told you that he could not walk: now he can do so, but with great difficulty and the assistance of a cane; he stands without assistance. As he lies in bed, with his back supported, he has considerable power over the legs; you see that the loss of power is not complete; it is in walking that the loss of power is most marked. There does not seem to be any impairment of common sensibility to the touch, and tested with the æsthesiometer. Testing the tendon reflex, we find that the patellar tendon reflex is absent: this you may say of both legs. When I tickle the soles of his feet he feels it distinctly, but there is no reflex muscular action. He feels the prick of the pins and the compass-points. This is in the legs. We will proceed to test them with the battery. The muscular fibres of the gastrocnemius of the left leg, even with a strong faradic current, exhibit no contractions; a current of greater strength produces faint contractions. In the same way, with this very strong current acting upon the muscles of the anterior part of the leg, we obtain very slight contractions. The current, indeed, is so strong that the pain—for he feels this distinctly—produces reflex contractions of the muscles of the upper part in the thighs; the same result being obtained upon the right side as upon the left.

Therefore, we have greatly diminished, almost abolished, electro-muscular contractility, while the sensibility is fairly well preserved. In the thigh, both in the muscles of the front and the back, the electro-muscular contractility is better preserved, though even here, as compared with the normal, it is diminished, and the sen-

sibility is greater here, for with this same current the muscular sensibility is more evident in the thighs than in the legs; but on the whole, considering the strength of the current, I should say that it is actually, though slightly, diminished. Testing the fingers of the right hand with the æsthesiometer, while he feels the two sharp points he cannot tell them apart very readily: therefore there is some defective sensibility in the fingers of this hand; two points, half an inch apart, are only felt as one. In the left hand the same condition is found to exist.

In the muscles of the arms and forearms both, but more especially the forearms, we have the same electric reactions that we had in the muscles of the legs; that is, very much diminished electro-muscular contractility; and electro-muscular sensibility is also very much impaired. Even with this strong current you see that there is very little response. The flexors act better than the extensors, both in arm and forearm; he feels the current more decidedly than in the legs, but I should make the same observation here as before: the electro-muscular sensibility is reduced considering the strength of the current, for he does not feel the same pain that anybody else would. In the biceps and triceps the same inaction is observed. So, in the main, it comes to the same as in the legs. Observe, also, that the skin is rather bluish, both on the arms and legs: this is due to defective capillary circulation. I will repeat the observation made upon admission: there is no blue line upon the gums.

What is the matter with this man? Here is a double history,—a history of exposure to white lead, and a history of sore throat, which may have been diphtheria. You see at once that there is paralysis, and that it is general, both in the legs and arms. Is this palsy due to his occupation? or did it follow the sore throat which he called diphtheria? This is the problem that confronts us, and it is not as easy of solution as you might at first have thought. You may think that we will be able to get some assistance from the electric reactions that I have shown you, but the differences between the electric reaction of diphtheritic palsy and that of lead-poisoning are those of degree rather than of kind. In both there is greatly diminished electro-muscular contractility. It is true that in lead-poisoning this amounts to absolute

loss of power to contract even under the strongest electric currents, whereas in diphtheria this electro-muscular contractility is generally diminished rather than lost. Therefore, so far as this examination goes, the character of the paralysis is more in favor of diphtheria than of lead-poisoning, because we found that the muscular power, though diminished, was not entirely lost. And there are strong reasons for this view, and I announce it as my opinion, that the occurrence of the lead is a mere accident, and that all this paralysis is really due to diphtheria. I will give you my reasons for this view of the case.

In the first place, the *general* character of the palsy is in favor of diphtheria. It is in the arms as well as in the legs; in the flexors as well as in the extensors. In the palsy that exists from lead, this, as the rule, is not the case. I know there are exceptions, but, for the most part, the palsy from lead is local and limited to groups of muscles, especially the extensors. Therefore the extent of the paralysis is against lead and in favor of diphtheria.

Further, there has been here what is, I think, of considerable value in the history of the case: associated with the symptoms of loss of power in the extremities (which have now reached the point that he is unable to walk, except in a very limited way with assistance), there has been throat-palsy. The loss of power in the extremities was *preceded by signs of throat-paralysis*,—difficulty in swallowing, liquids regurgitating through the nose, etc.

Thus, in looking over the history of the paralysis, we find it to be that of diphtheria rather than of lead. You see I have been dwelling upon points of the paralysis itself and the way in which it originated, rather than upon the negative evidence of the absence of the blue line upon the gum and the absence of colic and constipation; for, after all, we might be deceived, and might lay too great stress upon their non-existence.

As regards the blue line upon the gum, it cannot always be detected in lead-poisoning; especially in cases like this might we be mistaken, where there is an accumulation of tartar on the teeth. Therefore do not dwell too much upon signs that are merely negative of lead in the system.

Now, when you come to examine further into this case you see evidence of a decided deterioration of the blood, which is

common in diphtheria,—that is, a soft murmur in the heart, due to blood-changes,—an anæmic murmur; the first sound of the heart is weak; the circulation generally is feeble. You have already noticed the defective capillary circulation.

You have had developed before you the diagnosis of this case of diphtheritic paralysis, which I have taken the opportunity of comparing with lead-poisoning, which also might have existed here from the peculiar history which we have obtained. The chief points upon which I base my diagnosis of diphtheria are, as you see, the general character of the muscular palsy (the loss of power being partial, not absolute); the existence of a certain amount of electromuscular contractility; the history of antecedent sore throat, followed by difficulty in swallowing, and the rapid improvement in the paralysis (that of the throat having completely disappeared); and, on the other hand, the evidence of anæmia, defective heart-power, and enfeebled circulation, which are common to diphtheria.

Let us now ask ourselves what are the chances for his recovery, and what treatment will best bring about this recovery. The chances for his recovery are excellent. With the good care that he will receive here, the nourishing food and constant attention, I have no hesitation in saying that he will leave this hospital well. In truth, diphtheritic paralysis is one of those diseases where treatment can do a great deal.

Now, as regards the treatment of this case, I would say this: it must consist, first, in improving the quality of the blood. This is of course, and it is to be accomplished by iron,—the tincture of the chloride of iron, for instance. There is no better remedy than this, and you may give tincture of the chloride of iron in twenty-drop doses three times a day, which will be sufficient as a tonic dose. Then the remedy for cases of this kind, undoubtedly, in addition to the iron and plenty of animal food to improve the condition of the blood, is strychnia. The best means of using it is hypodermically; but there is a certain amount of inconvenience in administering it in this way. It is easier to give it by the mouth; but if I think that he is not improving as rapidly as he should, I will at once order it. He shall take it first in the usual way. We will give him the following:

R Strychninæ, gr. $\frac{1}{10}$,

in pill, thrice daily. He has been taking the fiftieth for several days, and it may now be increased. He shall also continue the tincture of the chloride of iron (gtt. xx t. i. d.) and a full nourishing diet.

The only question remaining to be considered in this interesting case is, Shall we make use of the battery as a part of the treatment? Hitherto it has been used only for diagnosis. What form of battery should be used? I will say this: there is no doubt that the muscular nutrition will be best kept up here by the judicious use of the battery to stimulate the various muscles. Where you find in these cases that the faradic battery produces contractions, use the induced current; where it will not, use the primary or galvanic current. Here the faradic current produces contractions, and we will adhere to it, applying it in turn to the different groups of affected muscles every other day.

This shall be the treatment, and, unless I am greatly mistaken, the man, in the course of a very few weeks, will present himself before you and walk into the clinic-room without a trace of his paralysis.

ACUTE PHTHISIS PULMONALIS.

James McB., 23 years of age, was admitted into this hospital November 21. His father died of pleuro-pneumonia after six months' illness. Remember, this is his own statement. His father died with progressive pulmonary disease, that is evident; but it is not likely that it really was pleuro-pneumonia, although he tells us so. It was a chronic lung-affection, probably phthisis, though it might have been one of those forms of inflammatory conditions of the lung which sometimes are continued for months. He says that his mother is living and well. One brother died with smallpox, two brothers and sisters are living and healthy.

Therefore, with the single exception of the father, who had what might have been pneumonic phthisis, or it might have been chronic inflammatory disease of the lung, there is no history of hereditary lung-trouble. Investigating his personal history, we learn that he is single, and is a tailor. He worked at his trade in 1876, and for some time after; he then tended bar for a while, then went on a farm for two years, and after that worked irregularly at his trade. He says that he has not been a drinking man.

About two years ago, he tells us, he was wrestling with a large man, and he was attacked by spitting of blood; and although the hemorrhage was quite free and he spat up a great deal of blood that afternoon according to his account, he did not seem to have any ill effects, for he went to his work as usual the next morning. I ask him if this is so, but I find that he is very deaf, and I fear that we will not be able to get much from him directly. I recall the fact that the history we have was only obtained with great difficulty, but we think that it is perfectly correct. I will adhere, therefore, strictly to the written statement, and give up any further attempt to get information from him.

He stated positively, and adhered to the statement, that he had no cough at all before the 3d of November, when he caught a severe cold. Since that time he has had cough, free expectoration mixed with blood, fever, night-sweats, prostration, and rapid loss of flesh. He has also complete loss of appetite, and constipation. The urinary examination was negative.

He has now not a great deal of cough, and a muco-purulent expectoration tinged with blood. He has had no free hemorrhage since the time he was wrestling that I have just mentioned, and, except an occasional mouthful of blood mixed with mucus, he has had none since he has been in the hospital.

You see by this record of the temperature, which is decidedly a temperature of fever, the character and progress of the disease since admission. It was 102° on the evening he came in, it has several times been down to 101° , and again here it goes up to $103\frac{1}{2}^{\circ}$, never down to normal, but usually showing a morning remission of one or two degrees. There are sweatings at night, and his cough is worse at night. The expectoration is not very profuse.

Now, gentlemen, he is emaciating rapidly, I am sorry to say: notwithstanding the strong efforts we have made; he has even fallen away considerably since he has been in the hospital; there is progressive emaciation.

Upon examining his chest, I find, by percussion, dullness over the whole right side; over here, on the left side, I do not find any dullness, except just under the clavicle, where it does not strike me as being perfectly clear. Everywhere on the right side

there is dullness, except at the apex in front, where the note sounds tympanic. On auscultation, I find under the right clavicle, most distinctly; loud crackling sounds; they mask the breath-sounds, but on expiration I occasionally catch the respiratory sound, which is hollow and blowing. Lower down in the lung the sounds that are emitted are coarse, crackling, with a good deal of hoarse, harsh, almost bronchial breathing; that is, anteriorly. Posteriorly, I find also coarse, crackling râles at the apex, but not the hollow respiration which I perceived anteriorly; coarse râles, with here and there finer crackling and harsh, vesiculo-bronchial and in parts almost purely bronchial breathing, may be said to exist over the whole right lung posteriorly. Now let us see what the left lung will teach us. There is exaggerated breathing, which, at the lower part of the lung, may be said to be harsh respiration, perceptible everywhere. There are very few, if any, distinct râles anywhere, except that just about the middle of the lung I find a few, but none very distinct; and the only thing that strikes me at all—barring this harshness of murmur, which is most evident at the lower part of the lung—is a slight prolongation of the expiration which I notice at the apex.

Now, what is the matter with this man? I should not ordinarily discuss a case of this kind in the presence of the patient, but, as he cannot hear me, it will do no harm. He tells us that he has only been ill apparently since November 3, and we are now only at the end of the month. The question which arises is, "Has he or has he not tuberculosis?" Is it a case of phthisis, or one of ordinary inflammation of the lung? Gentlemen, I think it is phthisis. It is true it is confined to one side, but on no other view can I explain the rapid breaking down of the lung; while the night-sweats, and the rapid emaciation, also suggest this explanation of the case. Although he told us that he caught cold at the beginning, we know nothing of it: it may have been simply the commencement of those severe symptoms.

I am sorry to make the diagnosis—you know what it means to him—of acute phthisis; to say that the right lung is being destroyed, and that no treatment will be able to permanently stay the progress of the disease to its fatal termination.

The left lung, very probably, will also soon become implicated. This is the diagnosis and prognosis.

Let me point out a few points of clinical interest in this unfortunate case, where there is great and rapidly-progressing emaciation, fever, exhausting night-sweats, and marked destruction of the lung, coming on in the course of less than a month.

While there are those who believe that acute pneumonic phthisis and tuberculosis are distinct pathological processes, who hold the view that one originates in inflammation, the products of which become degenerated, and the lung converted into a caseous mass which subsequently breaks down, and yet there is no true tubercle, I must say this is a doctrine that I never did believe in, and I find myself believing in it less and less the more I study such cases. I merely mention this as a matter of pathological interest, as this might be called by some a case of acute phthisis of inflammatory origin. I pronounce it a case of acute tuberculosis of the lung, for reasons which I cannot go into now, as it would lead into a discussion which would be more pathological than clinical.

The irregular fever, the cough, the night-sweats, the hemorrhage, and signs of softening make this case but too clear as being now one of acute phthisis, whether you look upon it as being inflammatory in its outset or tubercular from the first.

There is one point that should be mentioned: what about the original hemorrhage? Ought that to be considered as the cause of the subsequent events? I ought not to discard this from the history. Hemorrhage from the lungs may be followed by phthisis. I have seen persons apparently in perfect health, and in whom by no means of investigation could you have been able to detect any departure from health, who, as the result of a strain, have had an attack of congestion of the lungs and hemorrhage, which finally led to the development of phthisis. I merely point out that this has happened. I shall not detain you with a long account of how it happens. I simply state to you that if such an accident does occur, a part of the blood may be left behind to act as an irritant; and if the patient is at all disposed to tubercle, phthisis may afterwards develop as the result.

What can be done for this man? You think, probably, that I am entering into the question of treatment in a very hopeless frame of mind. This is true; but we must do the best we can for this poor man. There are cases in which the tubercular disease is stayed for a time, remains stationary, and life is thus prolonged. We will therefore do what we can to check the activity of the disease. We shall give him at night the one-hundredth of a grain of atropia to check the night-sweats. He shall have easily-assimilated food at short intervals, on account of his weakness; stimulants will be ordered, though in moderate quantities,—three ounces of whiskey a day, given in punch. We shall endeavor to keep down the irritative fever by a combination which is commonly used in these cases. It is a modification of Niemeyer's pill:

R Pulv. digitalis, gr. $\frac{1}{2}$;
Pulv. opii, gr. $\frac{1}{4}$;
Quininæ sulph., gr. i.

M. Ft. pilula.

Of this he has been taking one every three hours. He has been more comfortable since he has been taking this combination, and we will continue it. It is not a case for cod-liver oil, and not a case for nutrients,—I mean by that the iodide of iron and articles which change nutrition,—unless the man should happen to get rid of the fever and we have to do with a chronic case rather than an acute one. In its present condition the case is decidedly acute, and will be best treated by the measures we have indicated.

Gentlemen, I had other cases to bring before you; but, the hour having expired, I must reserve them for our next meeting.

THE INCURABILITY OF CONGENITAL COLOR-BLINDNESS.—Dr. B. Joy Jeffries calls attention to the fact that it is almost universally conceded by ophthalmologists and experts that congenital color-blindness is incurable. He refers to the contrary view held by Favre, of Lyons, France. Dr. Jeffries agrees in urging the value of educating the color-sense among the children of public schools.—*Medical Record*.

RESORCIN IN ANTHRAX.—In the treatment of carbuncle the following combination has been used with great satisfaction:

R Resorcin, ʒv;
Vaselin, ʒij. M.

S. Apply.

ORIGINAL COMMUNICATIONS.

REPORT ON PROGRESS IN HYGIENE, TOXICOLOGY, AND MEDICAL JURISPRUDENCE.

BY HENRY LEFFMANN, M.D.

DANGER IN CANNED FRUITS.

THE extended use of articles preserved in tins makes the question of contamination by poisonous metals an important one. In some of the reported cases lead has been identified as the offending substance, but in my experience, notably with canned peaches, *tin* has been the metal dissolved. It appears by a report recently made by A. Winter Blyth, Medical Officer of Health to Marylebone, London, that of twenty-one samples of preserved fruits—apricots, tomatoes, and pine-apples—every one contained a dangerous quantity of tin, the least quantity found amounting to one and a half grain per pound, the largest to eleven grains per pound. The solution of the tin was, of course, due to the acid juices of the fruits. This solution, it may be observed, takes considerable time, and in the cases in which contamination has been found by me the fruits were more than a year old. Chemical tests were made on these samples, because they had caused some irritation of the stomach in persons who had partaken of them.

GENUINE WINES.

Those clinicians who are fond of extolling the merits of natural wines, and regard the artificial forms or simpler substitutes as not meeting indications, will be surprised to learn that, according to recent examination, natural wines are generally contaminated with substances of decidedly toxic qualities, as compared with ethylic alcohol. Some of these bodies—*i.e.*, amyl alcohol—are dangerous. The great regard which physicians generally have for the products of "nature's laboratory" is not always based on facts.

THE USE OF ANTISEPTICS AND GERMICIDES IN ARTICLES OF FOOD.

The discovery of the specific preservative power exerted by such bodies as boric and salicylic acids has given rise to frequent use of them in various articles of food, and this fact renders important any inquiry as to the effect on the animal system of long-

continued use of these preservatives. A report has recently been published in Paris, which gives decided opinions on the question of the use of salicylic acid. It appears that some three years ago a Commission had, after investigation, decided positively against allowing this article to be used. The reasons given were that it has toxic properties, that the maximum safe amount is not known, and that, even if it were, the processes for estimating the acid in complex mixtures are not accurate enough to permit chemists to keep control over the articles sold. The Commission recommended the prohibition of the use of the acid, which was done. Much opposition, of course, arose from those who were engaged in selling articles thus preserved, and lately the question was reopened. It was pointed out, among other things, that new processes permitting of accurate determination have been discovered. The second Commission, however, after hearing all the arguments, refused to modify the original views. It still held to the views that the maximum quantity which could be taken was unknown, and that in many cases of disease, especially in affections of the liver and kidney, affections which are rather frequent, a contra-indication to salicylic acid exists. The prohibition against the use of this preservative is therefore continued.

The conclusions of the Paris Commission have an interest to us, because quite a number of preservatives and preserved articles are now in the market; the *rex magnus* which is being so extensively advertised is principally boric acid, but salicylic acid is also used, especially by brewers and bottlers.

The medical properties of boric acid and of its recent derivative boro-glyceride are little known, but the liberal use of these substances as antiseptics is likely to be for some time popular, and their effect when taken continuously in small doses is a matter of hygienic moment.

POISONOUS FOOD.

Many cases are recorded in which dangerous and even fatal symptoms have been produced by articles of food in which subsequent analysis has failed to establish the presence of any known poison. Comparison of different cases has not led to any very satisfactory result, for although it was evident that the food had in some way

suffered change, yet neither decomposition nor original disease appeared to be sufficient to render the substances poisonous. Many instances are noted in which putrefying flesh or flesh from diseased animals has been eaten without bad effects. The researches made in the last year or so on the products of putrefaction have given to us a clue, or at least the hope of one. The cadaveric alkaloids or ptomaines may very plausibly be regarded as the cause of poisonous effects. Some recent researches of Dr. L. Brieger, of Berlin, have an interesting relation to the question. In recording the recognition and isolation of new ptomaines, he points out that these products were only obtained in the earlier stages of the decay; as the process advanced the alkaloids were themselves destroyed. If this feature should be found to belong to all the ptomaines, we may certainly more easily understand the marked poisonous character of substances like sausage and cheese when in a state of staleness only, while similar articles are often eaten without effect when in even a marked condition of decomposition. Some years ago several deaths occurred in Philadelphia from eating old sausages. Specimens of the sausages were carefully tested, but no known poison could be found. They were not in a condition of active decay, but only markedly stale. It is not improbable that with the recently-acquired information on this subject a more satisfactory analysis could now be made.

ARSENIC IN KINDERGARTEN PAPERS AND TEXTILE FABRICS.

This subject has lately received some attention in medical journals. It appears that quite a large proportion of the papers sold contain arsenical colors, although non-arsenical papers are also furnished. Green colors are, of course, suspected at once; but reds have also been shown to be largely contaminated. Blue and yellow colors are mostly made with ultramarine and chrome-yellow, substances that cannot be considered as actively poisonous. The glazed papers are the most objectionable, for in these the colors are easily detached by the moist hands. The grade of papers known as "engine-colored," in which the coloring-matter is mixed in the pulp, is far more safe, because the material cannot be dislodged by water. A few weeks ago I made examinations of several samples of green paper of various shades

without finding arsenic. It is true, however, that these greens—which are possibly made of mixtures of chrome yellow and Prussian blue—are not so handsome as the arsenic-greens, while they are more expensive. The temptation, therefore, to use the more dangerous colors is very strong.

The supposed injurious effects of arsenical dyes are often referred to. Not only do the much-used aniline colors generally contain some arsenic as a residue from the arsenic acid used in the manufacture, but many of the chemicals used in the dye-house, such as sulphuric acid and tin chloride, are liable to arsenical impurity. As far as regards the arsenic in the dyes themselves, my examinations indicate that most of it remains in the dye-vat, since aniline reds which gave distinct reactions with Reinsch's test failed to communicate to yarn dyed by them any definite arsenical reaction.

POISONOUS HAIR-DYE.

No greater humbugs are palmed off on the community than quack medicines, and it is fortunate that many of them are frauds merely. Some of them are, however, decidedly dangerous, and among this class we find forms of hair-dye. An analysis of Ayer's Hair-Vigor, recently made in the laboratory of the Philadelphia Polyclinic, shows that it contains about a hundred grains of sulphur, and considerable sugar of lead. The sale of such a preparation under the deceiving title of a "hair-vigor" is a matter of moment in public hygiene. Cases of lead-paralysis from the local application of such dyes have been recorded, and the sale of these preparations ought to be prohibited by law. We have a poison-law in this State, which sets bounds on legitimate business; but the sale of any powerful poison is unrestricted if the name given to it is chosen to deceive.

ON THE ADVANTAGE OF AN ACQUAINTANCE WITH BOTANY AS A PRELIMINARY TO THE STUDY OF MEDICINE.

Read before the American Academy of Medicine, October 9, 1883.

BY BENJAMIN LEE, A.M., M.D., Ph.D.,
UNIV. PENN.

Published with the approval of the Academy.

IN a paper which I had the honor to read before the Academy at its last meeting, and which was listened to with

much kind indulgence, I pointed, with what I considered to be a justifiable pride, to the noble record left by the founders of American medicine, and more especially by those who took the initial steps in the establishment of the first great centre of medical education in America,—the University of Pennsylvania. I was enabled to show that they were uniformly men of high culture and classical attainment, and that in the examinations which they instituted, the curriculum which they established, and the elevated and polished tone of their instructions, they aimed at perpetuating a line of physicians not less learned and accomplished than themselves. Not less clearly was I able to demonstrate the fact that this high standard of general attainment and elevation of character won for the profession of that day a social and political status commensurate with its true dignity, and truly enviable.

My task to-day is not of so pleasing a nature. I have to lament a fane neglected, a profession degenerate, an ancestry dishonored.

The retrospect of the succeeding epoch is by no means so flattering to the self-esteem of the patriotic student of American medical history. The age was possessed with the deceitful demon of an intense utilitarianism. It could see no good in anything which was not capable of being immediately and palpably converted into dollars and cents. All that could possibly be charged with the crime of being ornamental, of contributing to the adornment of life and of character, it scoffed at and frowned down. Medicine was compelled to share in the general debasement at the throne of Mammon. The style of education which it demanded was calculated to produce, and, with a few brilliant and praiseworthy exceptions, did produce, not physicians—men acquainted with the wide range of the physical sciences; not doctors—men learned themselves, and capable of teaching their fellow-men the great truths of physical life, of their relations to the world around them and to the forces of nature, and so induce them to lead healthier, happier, and more noble lives; but simply exhibitors of drugs, prescribers of pills and potions,—in the expressive language of the barbarians of our native wilds, “medicine-men.”

The call was for cheap doctors; and the supply was equal to the demand. All

over the country petty advertising agencies sprang up under the name of medical colleges, each new one offering its diploma at a less expenditure of time and for a lower standard of requirement than those already in the field. In order to keep their lecture-rooms full, the older colleges were compelled, or thought they were compelled, to accept students correspondingly less well prepared to enter upon the study of medicine, and to shorten rather than lengthen their terms of study, so that no opportunity was offered for supplementing this lack of qualification before graduation. The classics were soon kicked overboard. The Latin thesis, at first the rule, soon became the exception, and before many years was simply a curiosity of medical literature. The higher mathematics quickly followed, and finally the accessory sciences of botany, geology, comparative anatomy, and so on. Botany, however, held its own longer than any other of the supplemental departments of learning. In glancing over the interesting annals of the University of Pennsylvania, and its progenitor the Philadelphia Medical College, indeed, the attention bestowed upon this study from the earliest days of the College until comparatively recent times cannot fail to attract notice.

Three years after its foundation, in January, 1768, Dr. Adam Kuhn, returning from the completion of his medical education in Europe, where he had studied *materia medica* and botany under Linnæus himself, and the other branches at Edinburgh, received the appointment of professor of these two cognate subjects, which had heretofore been lectured upon by Dr. Morgan, as a part of his course on Theory and Practice.* This professorship he held for twenty-one years; but on the organization of the University of the State of Pennsylvania, in 1782, the two departments were separated, and the chair of Botany, after having been declined by Dr. James Tilton, of Delaware, was given to Mr. William Bartram. In 1789, when, through the exertions of Benjamin Frank-

* A letter of the great Swedish botanist is preserved, in which he thus congratulates Dr. Kuhn on this appointment: “Viro Clarissimo Dno. Adam Kuhnio, in Philadelphia Botanices Professori, S. pl. d.

“Car. A. Linné.

“Tuas V. A. d. 12. Januarii datas hodie accepi et summo gaudio percepi, te professorem Botanices et *Materie Medicæ* in Athenæo Philadelphico constitutum; de quo, ex intimo corde gratulor! Hoc dixi uxori et literis, qui omnes, de tuâ hâc fortunâ, summum mecum percepere gaudium.”

lin and others, the College was again put in possession of its lost rights, Prof. Kuhn was reinstated, and continued to hold the position until the autumn of the same year, when he resigned it to accept the professorship of Practice of Medicine in the new university, and Dr. Benjamin Smith Barton, a native of Lancaster, in the State of Pennsylvania, was elected Professor of Natural History and Botany. This chair he filled most acceptably, not only delivering full courses of lectures for twenty-four years, and inspiring the students with a love of this science, which in several instances bore conspicuous fruits, but also publishing important contributions to its literature.* He resigned it only to take that of *Materia Medica* in 1796. Up to the year 1792, when the "University of Pennsylvania" assumed its present title and organization, attendance on the botanical lectures was compulsory. Dr. Barton, it may be said in passing, has been styled "the first teacher of natural science in this cis-Atlantic world."

Among those whom he trained as investigators in the rich field of the medical flora of the New World, and to whose efforts the whole world of medical science has tendered its acknowledgments for their valuable contributions to the *materia medica*, may be mentioned the honored names of Dr. William P. C. Barton, his nephew, Dr. William Darlington, Dr. William Baldwin, and Dr. Thomas Horsfield. In 1816 the chair of Botany ceased to appear on the list of regular professorships, from the fact that the trustees, in the vain hope of supplementing the purely technical courses by others designed to inform the students on allied branches of great importance to truly scientific men, established a "Faculty of Natural Science." This was the progenitor and model of the present "Auxiliary Faculty of Medicine," founded by the bequest of the late Prof. Wood, which is now doing a good but sadly-limited work among the post-graduates of the university and of other schools. First on the list of its professor-

ships was that of Botany; and Dr. W. P. C. Barton was at once called to assume its duties. Under his auspices renewed interest was aroused in the subject, and the trustees went so far as, with the aid of a liberal grant from the Legislature, to purchase a large tract of ground near the city, for the purpose of "establishing a garden for the improvement of the science of botany." This project, however, never seems to have been carried to its fulfilment. Among this gentleman's more important contributions to our knowledge of the therapeutic treasures in our fields and forests are his "*Vegetable Materia Medica of the United States*," "*A Flora of North America*," and "*A Flora of Philadelphia*."

The first mentioned of these works was a truly superb contribution,† in two large quartos, with finely-colored illustrations, and was "the first work of its kind ever published in America." Many of the plates were colored by the author's own hand.

In the course of the Preliminary Observations to the second volume the author complains feelingly of the growing influence of the spirit of which I have spoken in the opening of this paper. He says, "There are many discouraging circumstances connected with investigations of this nature, which I may not feel willing to combat or oppose. Among them is the notorious discouraging influence, at least in this city, relative to botanical pursuits, proceeding, too, from sources where accidental and professional elevation gives a kind of adventitious importance to opinions which would otherwise be wholly inefficient in their operation, if not beneath notice or refutation. As regards my own efforts, I am free to confess that my interests are too deeply connected with such opposition to the pursuits of the professorship I have the honor to hold, to be very solicitous to run counter to or struggle against such appalling circumstances. And at least necessity, if not the will, would urge a relinquishment of pursuits which are industriously taught to be incompatible with the severe and more useful occupations of medicine, or with the attainment of the more conspicuous eminence to which the practice of physic and surgery lead."

* "Collections for an Essay towards a *Materia Medica* of the United States. A paper read before the Philadelphia Medical Society by Benjamin Smith Barton, M.D., Professor of *Materia Medica*, Natural History, and Botany in the University of Pennsylvania, on the 21st of February, 1798." This little tract went through three editions, and introduced to the profession for the first time several remedies which have since become valuable stand-bys in practice. In 1803 he published his "*Elements of Botany, or Outlines of the Natural History of Vegetables*," illustrated by thirty plates, nearly all of which were original.

† *Vegetable Materia Medica of the United States, or Medical Botany*, etc. By William P. C. Barton, Surgeon in the Navy of the United States, etc., Professor of Botany in the University of Pennsylvania. Philadelphia, 1817.

In this work Prof. Barton introduces us to Dr. Schoepf, of Erlangen, Germany, a botanist who came to this country with the German troops during the Revolutionary War and employed himself in collecting materials for an American materia medica. In 1787 he published the result of his labors, in a small work entitled "*Materia Medica Americana Potissimum Regni Vegetabilis*," which Barton tells us, in his preface, laid the foundation of all the information we now possess concerning our native medicinal plants. Schoepf was certainly a most industrious collector as well as careful observer, the little vellum-bound copy of his book which I have had the good fortune to find in the library of the Pennsylvania Hospital containing three hundred and fifty-three distinct species, with their botanical characteristics, and, where known, their medicinal virtues, carefully recorded. It is written in classic Latin, and its thoroughness and conscientiousness certainly entitle it to Dr. Barton's encomium, although it is not the earliest work on this subject. The following extract from his preface is as pertinent to-day as it was a hundred years ago:

"I could not but wonder at the wealth which Bountiful Nature has bestowed upon the inhabitants of America, and the singular liberality with which she has furnished those broad and wide-stretching domains with all the aids, or at least those which are most essential, to the proper treatment of disease. But at the same time I was saddened that so many and such incomparable indigenous remedies should be almost entirely neglected in America itself, or, at best, known to but very few of the natives. For the great majority of those who practise medicine in America, although learned and cultivated men, who have studied the rudiments of the Art of Machaon either in the schools of Europe or in the colleges of America, learned their *Materia Medica* from the time-honored compends of European Physicians, and so, following the beaten track, neglect the supply of domestic simples in which their own provinces abound, and, as indeed is the case almost everywhere, look abroad for what they already have in abundance at home.

"Various reasons may be assigned for this neglect. To some a pompous farrago of remedies is distasteful, and, confining themselves to a limited selection of the

more conspicuous medicines, they despise all the rest. Others seem to think it below the dignity of a Physician to make use of simple indigenous remedies. In fine, some are unwilling, and others know not how, to step out of the trodden path. It is not every one who dares incur the risk of introducing a novelty."

In the Ridgway branch of the Philadelphia Library I find a quaint little time-stained volume, published more than a century earlier than the last, and entitled "*The American Physician; or, A Treatise of the Roots, Plants, Trees, Shrubs, Fruit, Herbs, etc., growing in the English Plantations in America. Describing the Place, Time, Names, Kindes, Temperature, Virtues and Uses of them, either for Diet, Physick, etc. Whereunto is added A Discourse of the Cacao Nut Tree, and the Use of its Fruit: with all the Ways of making of Chocolate. The like never extant before.* By W. Hughes. London. Printed by J. C. for William Crook, at the Green Dragon without Temple Bar. 1672."

Although pretentious in its name, however, it is not the work of a physician or of a scientific man, and takes no rank with the elaborate work of the German savant.

The period of our national history in which the Bartons lived was especially fertile in botanical research and authorship. As an appendix to his edition of Robin's "*Florula Ludoviciana*," or *Flora of the State of Louisiana*, Rafinesque gives the following list of botanical works then in process of publication or preparation (1817):

"*Botany of the Southern States, Carolina and Georgia.*" By Stephen Elliot, Esq., Charleston.

"*Descriptio uberior graminum et calamum Americæ Septentrionalis indigenarum et cicurum.*" Auctore D. Henrico Muhlenberg, Philadelphia.

"*Descriptio uberior plantæ Lancastriensis et Americanæ.*" Opus postum. auctore D. Henrico Muhlenberg.

"*Manual of the Botany of the Northern States.*" Albany.

"*Flora Novanglica, or Botany of the New England States.*" By Dr. Bigelow and Mr. Booth, Boston.

"*Prodromus Flora Noveboracensis, or Catalogue of the Plants growing within Thirty Miles of New York, with some New*

Species." By Dr. Eddy, Messrs. Torrey and Knevels. New York.

"Flora Philadelphica." By Dr. W. P. C. Barton, Philadelphia.

"Synopsis of the Botany of the United States." By John Leconte, Esq.

"Medical Botany of the United States." By Dr. Bigelow, of Boston.

"Botanical Materia Medica of the United States." By Dr. W. P. C. Barton, Philadelphia.

Botanical Articles in the Journal of the Academy of Natural Sciences of Philadelphia.

Of the valuable and costly work of Dr. Barton I have already spoken.

I must not omit a reference to the superb work of Prof. Jacob Bigelow, of Harvard University, referred to in this list. A native of Sudbury, Mass., he practised medicine successfully for many years in Boston. He early published his "*Flora Bostoniensis*," and followed it not long after by his "*American Medical Botany*," in three large octavo volumes beautifully illustrated in color, the drawings having been made by himself. I take them to be the first specimens of chromo-lithography, or at least of printing in colors, ever executed in this country. This work appeared in 1817, and at once commanded marked attention, not only in this country, but in Europe. He also edited, with notes, Sir J. E. Smith's work on Botany, and was one of the committee of five selected in 1820 to form the American Pharmacopœia. In connection with this he is to be credited with the principle of the nomenclature, afterwards adopted by the British Colleges, of substituting a single word for a double in the materia medica, wherever practicable. He had the reputation of being an elegant classical scholar, and was as graceful as a writer in the general field of literature as he was able in the preparation of scientific essays. In the preface to the first volume of his "*American Medical Botany*" he pertinently says,—

"When we consider how small a portion of the vegetable kingdom has been *medically* examined, there can be little doubt that a vast number of active substances, many, perhaps, of specific efficacy, remain for future inquirers to discover. In this respect every successive age is making acquisitions. But a century or two ago the civilized world were unacquainted with the properties of *ipecacuanha*, of *jalap*, of

the Peruvian bark. The powers of digitalis in certain diseases are of very recent observation." And later in the same preface he appeals to the patriotism of his medical readers as follows: "It is the policy of every country to convert as far as possible its own productions to use, as a means of multiplying its resources and diminishing its tribute to foreigners. The plants of the United States are various in their character in proportion to the extent of latitudes and climates which our country embraces. . . . A great number of foreign drugs, such as gentian, colombo, chamomile, kino, catechu, cascarilla, cannella, etc., for which we pay a large annual tax to other countries, might in all probability be superseded by the indigenous products of our own. It is certainly better that our own country-people should have the benefit of collecting such articles than that we should pay for them to the Moors of Africa or the Indians of Brazil."

But it was not alone in the making of collections and publishing of treatises that the interest of that day in this most valuable science showed itself. When that enthusiastic young English botanist, Frederick Pursh, author of the "*Flora Americae Septentrionalis*," landed in this country, at the close of the last century, he found no less than four botanical gardens, well stocked, carefully maintained, and comparing very favorably with similar institutions in Europe. These were Marshall's, at Lancaster; the Bartrams', on the banks of the Schuylkill, near Philadelphia, founded under the patronage of Dr. Fothergill; the garden known as the Woodlands, also near Philadelphia, the property of William Hamilton, Esq.; and Dr. Hosack's, in New York, afterwards purchased by the State of New York. Pursh spent eleven years of indefatigable study in this country, and his work, in two volumes, containing accurate descriptions of seven hundred and thirty-nine specimens, and adorned with seventy-four fine engravings, has been a perfect mine for all subsequent investigators.

He was as brave as he was learned and diligent. On two occasions he made exploratory trips of three thousand miles through the pathless mountains and forests of what was then the extreme West, with no other companion than his dog and gun, being for weeks together out of sight of a human habitation or sound of a human

voice. His name has come down to us embalmed in the now fashionable laxative, —the Rhamnus Purshiana, or Cascara Sagrada.

The only treatise on this subject which American medicine has produced in comparatively recent times, which will at all compare in richness and beauty with the works of Bigelow and Barton, is Carson's "Illustrations of Medical Botany."*

This work was produced in five large quartos, the illustrations being life-size. It appeared in 1847. The author says in the preface, "Medical botany has been neglected in this country, not on account of its destitution of interest, but because the facilities of readily prosecuting its study have not been supplied, more particularly in the way of delineation. The connection between materia medica and botany is well understood; there is an indebtedness of the former to the latter, and a dependence either for the means of distinguishing between articles or of augmenting their number, too well settled to be controverted. Where an inability to understand the details of this science occurs, it must be a matter of regret to the individual, and cannot arise from any undervaluation of the subject. . . . Apart from the expediency of merely comprehending what is written in the books upon the department, the advantages and gratification experienced by one who has an insight into this scientific mode of description, exemplification, and arrangement will induce him further to pursue it. A wide field of research is opened, to be cultivated with infinite profit to himself, and, should opportunity present, with benefit to science itself."

In the same year with Dr. Carson's beautiful publication appeared an admirable text-book of "Medical Botany," the only one ever issued in this country, by Dr. Griffith, of Philadelphia. Since that time, now nearly forty years ago, the development of this important subject has been left almost entirely in the hands of the wholesale druggists.

The vast majority of medical graduates who devote themselves to the practice of their profession live either in the country or in rural towns, where the exigencies of

their practice take them into the country every day. How great are the opportunities of these practitioners, in their long, solitary daily drives, for making themselves thoroughly familiar with the flora of their respective neighborhoods! And how much might they not do towards developing the resources of our native *materia medica*! That such a systematic development is still greatly needed is sufficiently attested by the report made to the American Pharmaceutical Association by Mr. C. Lewis Diehl in 1870. He shows it to be a matter of the greatest difficulty to obtain any reliable information as to the collection of indigenous drugs. "It is a remarkable fact," he says, "that our Louisville druggists depend upon the New York markets for their supplies of indigenous drugs, many of which abound and frequently are collected in our immediate neighborhood. The Kentucky side of the river contributes to our supplies through a few small gatherers, chiefly Germans, but, taken altogether, our home-supplies far from meet the demand of our retail trade."

"Except to the initiated," says Dr. Maisch, in a paper read before the Philadelphia College of Pharmacy, April 16, 1872, "very little is known of the localities where many of the staple articles of the indigenous *materia medica* are collected for the general commerce, the information being usually limited to the geographical section of the country." "Although many of the indigenous plants have been used in domestic and in regular practice, the use of some seems to be altogether confined to certain localities, beyond which their medical properties are unknown or not appreciated."

"It would be very interesting to obtain reliable information concerning them. Dealers in indigenous drugs appear to sell them without questioning their identity, relying upon the statements of the Western collectors. The only way to arrive at correct results is to have complete specimens of the different species collected."

The germ of the science of botany was undoubtedly found in the study of the vegetable portion of the *materia medica* by the pupils of Aristotle. Shall it be said that medicine is unfaithful to its first love, and that the allegiance of more than two thousand years has now come to an end? Certainly it is a matter of importance that the country, if not the city,

* Illustrations of Medical Botany, consisting of Colored Figures of the Plants affording the most important Articles of the *Materia Medica*, and Descriptive Letter-press. By Joseph Carson, M.D., Professor of *Materia Medica* in the Philadelphia College of Pharmacy.

practitioner, should be able to distinguish between *dulcamara* and *datura*,—should possess, in other words, clear notions of the general aspect of deleterious plants as contrasted with harmless or beneficent ones. He may, of course, go much farther than this; for, as suggested to me by Dr. Rothrock, Professor of Botany in the Auxiliary Faculty of the Medical Department of the University of Pennsylvania, the mere fact of a plant belonging to a given order may not only determine it as being of therapeutic value, but may indicate the character of its medical efficiency. All gentians, for example, are tonics; most labiates are carminatives or aromatics.

Linnæus expressly says on this subject, "Plants that agree in genus agree in quality; those of the same natural order have nearly similar properties; and those of the same natural class are somewhat similar in their powers."

On this fact De Jussieu based his lectures on *Materia Medica* in the Paris Faculty of Medicine, eighty years ago. There are, of course, exceptions to this law, but the cases in which it holds good are so numerous as to make it of great practical value. It may also add greatly to the esteem in which a country physician is held by his neighbors, if he is able to tell them, on the appearance of a new plant in their neighborhood, its name, habits, and qualities, whether it will prove a friend or a foe, whether it will ruin their pastures or help to fatten their cattle.

Unprofessional men with a smattering of botany have not been slow to take advantage of this flaw in the armor of the regular physician. The result has been the development of a medical sect, who, wisely dropping the name of their father, Thompson, have caused the noble title of eclecticism to become a stench in the nostrils of every honest practitioner. For this we alone are responsible, for we have been unfaithful to our high and holy trust. In Europe, the study of botany is still obligatory upon the medical aspirant. In Sweden, so important is it considered that even the students of the Royal Gymnastic Institute, who intend to practise nothing but the Movement Cure, are compelled to pass a strict examination in it. One of the most thorough and enthusiastic botanists whom I know is a Swedish movement-cure licentiate, formerly one of my assist-

ants. If it be asked why, admitting the value of a knowledge of this science to the physician, it may not be studied after graduation, and be left optional with the individual, I would answer, first, that it is naturally an elementary and preparatory study, like chemistry, teaching us the history and nature of the tools we are to use; secondly, that a previous acquaintance with it will greatly add to the enjoyment and ready understanding of *materia medica*; and, thirdly, that all experience shows that, like other elementary studies, if it is not taken up before the more technically professional branches, it very rarely will be at a later period.

The Medical Society of the State of Pennsylvania, of which I have the honor to be a member, has been for years past silently but surely working for the elevation of the profession, by raising the standard of requirements for acceptance as a student of medicine. At the last meeting a report was adopted by a large majority, establishing a schedule of subjects for examination, and binding the County Societies to subject all applicants for admission into the offices of their members as students to such examination. I append the report in full to this paper. One of the sciences on which the Society has thought it desirable that the candidate should pass an examination is botany. A consideration of the claims of this study upon the attention of physicians generally, and especially of American physicians or those desirous of becoming such, has, therefore, a certain degree of pertinence at the present time.

It has been my aim, in this somewhat disjointed paper, to call attention to those distinguished members of our profession in this country who have delighted to devote their energies to developing our native *materia medica*, and whom the country and the profession have delighted to honor therefor; and, more by their shining examples and in their own forcible language than by argument or eloquence of my own, to stimulate others to renewed interest in this important department of medicine; and to call attention to the fact that this domain is by no means so fully explored that rich discoveries, full of honors to themselves and of benefits to their race and nation, may not await those who will even now thoroughly prepare themselves for its patient exploration.

REMARKS ON A CASE OF CARCINOMATOUS SARCOMA OF THE TESTICLE, AND ON MALIGNANT TUMORS OF THE TESTES.

BY W. G. MACCONNELL, M.D.

AT a recent meeting of the Pathological Society of Philadelphia I had the honor of presenting a specimen of carcinomatous sarcoma of the left testicle,* obtained from the Jefferson Medical College Hospital, from a young man under the care of Prof. John H. Brinton, who removed the diseased organ November 7, 1883.

The growth, in its histological features, is unique; at least I have not been able to find the record of a similar case.

It is claimed by the best authorities that by far the most frequent form of growth met with in this organ is the medullary carcinoma. Thus, Mr. Bryant, in an analysis of seventy-six cases, including the fifty-one cases of Mr. Ludlow, which were analyzed by him in reference to the ages of the patients, claims that they were of this type. Now, whilst so many very eminent authorities make this statement, a conclusion which I imagine to be based upon their gross appearances, I do not find it borne out by my own observations; for in twenty cases of tumors of the testes occurring in this city in the practice of Gross Sr., Agnew, Pancoast Jr., Gross Jr., Brinton, Levis, myself, and others, that I analyzed in reference to their histological characteristics, I found that ten were sarcomata of the round-celled forms, three were sarcomata of the ordinary spindle-celled forms, two were sarcomata of the large spindle-celled forms, three were tuberculous or scrofulous, one was a fibroma, and one was a carcinomatous sarcoma. The ages at which they occurred were from seventeen to twenty to forty years. These conclusions were verified by microscopical examinations, conducted by careful and competent observers. I therefore would award the first rank to the sarcomata in tumors of this organ. Prof. S. D. Gross, in the last edition of his "Surgery," also expresses the same view.

With regard to the location of this form of growth, I have found the disease to be invariably unilateral. The forms of tumors most frequently met with in this organ, in the order of their frequency, are as follows: 1st. Sarcomata.

2d. Chondromata (cystic degeneration may occur as a separate affection, but is more often associated with sarcomata, chondromata, and other growths). Next to the parotid gland, chondroma occurs most frequently in this organ.

3d. Myomata are among the rarest of tumors in this organ, and, when they do occur, are usually associated with carcinoma or sarcoma. Cases have been reported, however, by Billroth, Rokitsansky, and Rindfleisch.

4th. Fibromata are the rarest of the tumor-formations in this organ. Cruveilhier has reported one case; Dr. Formad has reported one case. The so-called fibroplastic tumors of this organ, of Lebert and Hovard, may, I think, be relegated to the sarcomata.

5th. Malassez and others have reported cases of lymphadenomata.

6th. Van Buren has reported one case of dermoid cyst of this organ; Virchow records six other cases; Curling has reported ten cases.

The prognosis of sarcomata of the testicles is very unfavorable, the average duration of life, when they run a natural course, being about from ten to twelve months.

Implication of the glands, so rare in sarcomata in other situations, is frequently observed when the testicle is affected: indeed, the glands are more often affected in sarcomata than in carcinomata, so that this symptom affords us no aid in diagnosis. The frequent occurrence of lymphatic involvement tends to show, in the study of the histogenesis of sarcomata of this organ, that by far the greater number (if not all) originate from the endothelial cells of lymph-lacunæ that surrounds the tubules. The absence of glandular involvement in some of the cases that have been noticed can be explained, as was pointed out by Mr. Butlin in *The Lancet*, August 28, 1880, by the short duration of the disease.

Having stated that the prognosis, when the case is left to run its natural course, is very bad, I propose to show, by a few quotations, that an early removal not only prolongs life, but may, if performed soon enough, entirely prevent recurrence. Thus, of twenty-six cases analyzed by Prof. S. W. Gross, "three were well after castration for an average period of six years, two being free from recurrence for two years and one for fourteen years. Three pursued a natural course, and post-mortem showed generalization in

* For history of this case, see p. 217, *post.*—ED.

one, visceral tumors without glandular involvement in two. Of the twenty-six cases, twenty were castrated; of these, one was living with local recurrence and glandular involvement, and nineteen were dead, with glandular implication, and visceral deposits in lungs and osseous system in sixteen. Of these, in eighteen, or sixty-nine per cent., the retroperitoneal glands were the seats of secondary deposits."

Continuing, the same authority states that "of twenty-three patients subjected to operation, three were living at the date of the last reports for an average period of six years (and, strange to say, they belonged to the round-celled variety), one was still alive with local and general reproduction, and nineteen died of generalization of the disease, their average life having been twenty-seven months. Hence castration not only prolongs life, but may effect a cure. The total duration of life from the first observation of the disease until its termination after operation averaged eighteen months for the round-celled and twenty-eight months for the spindle-celled variety, and the former was followed by metastatic tumors in eighteen per cent. more of instances than was the latter."

I may also herewith append Curling's analysis of nine cases living after operation, but which do not seem to have been confirmed by microscopical examinations.

I was living 15 years after.

I " " 5 " "

I " " 7 " "

I " " 12 " "

I " " 9 " "

4 were " 5, 4, 3, and 2 years, respectively.

With reference to date of recurrence, I will give the period of recurrence in thirteen of the cases analyzed by Ludlow: five at two years, four at three years, one at ten years, and three at periods varying from six to eighteen months.

In the seventy-six cases referred to as analyzed by Bryant, which he calls medullary carcinoma, the ages at which the disease occurred point strongly to the fact that most of them were sarcomata and not carcinomata. Thus:

Before 5 years,	6 cases.
From 15 to 20 years,	2 "
" 21 " 30 "	17 "
" 31 " 40 "	31 "
" 41 " 50 "	11 "
" 51 " 70 "	9 "

250 SOUTH TENTH STREET, December 3, 1883.

FOREIGN BODY IN THE BLADDER SUCCESSFULLY REMOVED BY SUPRA-PUBIC CYSTOTOMY.

BY DONNEL HUGHES, M.D.,

Philadelphia.

G. M., aged 42 years; married; weight, one hundred and sixty pounds; height, five feet ten inches. Has enjoyed good health all his life. While under the influence of liquor, and with a questionable motive, he introduced a steel bonnet-pin (five and a half inches long, having a glass head three-eighths of an inch in diameter) head first into his urethra, and accidentally pushed it out of reach. He first endeavored to remove it with an ordinary pair of tweezers, but, failing to do so, then tried to push the point through the wall of the urethra. While so doing, he snapped it off about one and a half inches from the point. Two hours after the accident I found him in a great deal of pain, with some urethral hemorrhage and a constant desire to urinate. As the point of the pin could be located, and was inaccessible by way of the meatus, I determined to perform external urethrotomy, which successfully removed the smaller portion of the pin. Finding that the other part was not in the urethra, a sound was passed into the bladder, and the remaining portion was very distinctly felt. After a consultation with Drs. John H. Packard and J. P. Stidham, it was determined to remove it by a supra-pubic operation. With the kind assistance of the above-named gentlemen, the following operation was performed. The patient having been etherized, I made an incision in the median line of the abdomen, extending from the symphysis pubis about three inches upward, dividing the skin, fascia, and aponeurosis. The bladder was distended with water, and a lithotomy-staff passed, the handle of which was well depressed between the thighs and firmly held there, in order to make the point of election more prominent. An opening was then made in the bladder about three-quarters of an inch in length, through which the foreign body could be readily felt by the finger and was subsequently removed with the forceps. The abdominal wound was closed with two hare-lip pins; the lower portion of which was occupied by a rubber drainage-tube extending into the bladder. The opening

in the bladder was left for nature to close. The hare-lip pins and drainage-tube were removed on the fourth day. After that time the urine was drawn every two hours with a gum catheter. The after-treatment was fifteen grains of quinine daily, and a two-grain opium suppository every four hours while awake and in pain. The abdominal wound was entirely healed on the eighteenth day, and all the functions of the bladder have been performed without any difficulty since that time.

17 SOUTH FORTIETH STREET, December 5, 1883.

NOTE ON IODOFORM.

BY PHILIP LEIDY, M.D.

FROM time to time recently there have appeared, in various medical journals at home and abroad, paragraphs recommending certain essential oils, such as the expensive oil of rose, geranium, etc., to be used for the purpose of concealing the persistent and disagreeable odor of iodoform. Considering the rank the latter has reached in therapeutics, such concealment is much desired. To add to the list I would recommend the oil of citronella as the most certain and satisfactory. Two drops of the oil to the drachm of iodoform will be found sufficient. It may be used for the same purpose with cod-liver oil when prescribed for external use. The oil itself is used as a rubefacient and anodyne externally, either alone or in combination. I am fully convinced of the advantages claimed for it. The price of the oil is a mere song, and as such is within the reach of all. The oil of chaulmoogra (very expensive), much lauded as an external application for sciatica, etc., I found much enhanced in its therapeutic value by combining with it the oil of citronella in the proportion of one-third of the latter. As it is comparatively little known to the profession in this country, I would recommend a trial, and am sure its use would become more general.

526 MARSHALL STREET, PHILADELPHIA.

POSTAL ARRANGEMENT FOR THE COLOR-BLIND.—It is claimed that many letters went to the Dead-Letter Office because of the inability of color-blind persons to recognize the difference in color between red and green. This is obviated by the law which has just gone into effect of having but one denomination and a uniform rate of letter-postage.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF L. A. DUHRING, M.D., PROFESSOR OF DISEASES OF THE SKIN IN THE UNIVERSITY OF PENNSYLVANIA.

Reported by HENRY WILE, M.D.

HERPES ZOSTER OF THE FACE.

GENTLEMEN,—This young man, 25 years old, presents an inflammatory eruption on the forehead over the right eye, extending from the eyebrow to the border of the scalp. From the color of the lesions we may infer that the eruption is in a late stage of development,—at any rate, that it is not as acute as it was a few days ago. According to the statement of the patient, it first made its appearance five days ago, in the form of papules, accompanied by an itching, burning sensation around the right eyebrow. He also states that on removing his hat he felt a pain shoot backwards over his head from the right eye. The case is not easy to diagnose, as the lesions appear in a somewhat anomalous form, yet there are sufficient appearances to characterize the lesions as those of herpes zoster. On one patch we see the disease in the vesicopapular stage, the lesions being crowded together in the form of variously sized groups or bunches, and affecting that region of the skin which is supplied by the right supraorbital nerve. They first appear as pin-head-sized papules, which soon pass into vesicles, the latter remaining intact, and at the end of two or three days drying up into crusts. The entire process is an acute one, and runs its course in ten or fifteen days. In the present case the disease is in a very light form; and in this stage, where there are crusts, small papules and vesico-papules, it may be confounded with acne or tubercular syphiloderm, but, bearing in mind the grouping of the lesions, their appearance along the course of certain nerves, and the history of the lesions, there is no difficulty about the diagnosis. No treatment is necessary in this case. The disease is self-limited, and will run its course in about one week; where, however, it is severe it demands treatment. The pathology of the disease shows it to be a nerve-affection, there being an inflammation of the cutaneous nerves, sometimes of the nerve-trunks. The treatment which is found most gratifying is that

by the galvanic current, a light current being used of five or ten cells. After the application the patients often express themselves as being greatly relieved.

As to local applications, one of the best is that of a lotion of the fluid extract of *grindelia robusta*, one drachm to one or two ounces. Another good lotion, and one which is useful in many other affections of the skin, is as follows:

R Zinci sulphat.,
Potassæ sulphuratæ, aa ʒss;
Aquæ, f ʒiijss;
Alcoholis, f ʒss. M.

Sig.—To be dabbed on the part every three or four hours.

*ECZEMA PUSTULOSUM ET PEDICULOSIS
CAPITIS.*

The next case is that of a little girl about 13 years of age, presenting a diseased condition of the scalp in the form of pustules, exudation, and a good deal of crusting. The hair is everywhere matted down by the exudation, doubtless through the agency of the many applications that have been made. In looking for a recent lesion, we find such to consist of small split-pea-sized pustules, and they are for the most part situated on the side of the face and on the back of the head, extending upon the neck. The mother of the patient states that the disease has existed ever since the child was six months old, sometimes being well, but relapsing from time to time.

Whenever we have this matted condition of the hair and the lesions described occurring in a child, we must suspect pediculosis. It often happens in chronic cases of this kind, where numerous applications have been made, that most of the pediculi have been driven away, and but few remain to keep up the mischief, so that it may become a difficult matter to find a *corpus delicti*. We can, however, prove the presence of pediculi by the presence of their ova. In this case, examining the hair on the sides and back of the head, we find them strung with nits, which, being once carefully examined, can hardly be mistaken. The appearance is sometimes simulated in seborrhœa by fine collections of epithelium which adhere to the hair, but in these cases a resort to the microscope will at once remove all doubt.

The case before us is, then, one of pustular eczema, which, judging from the lesions, has existed for some months, and upon which the pediculi became engrafted. A

practical point to be borne in mind in connection with this class of cases is the enlargement of the post-cervical glands. In this case these glands vary in size from a pea to a filbert.

The diagnosis having been made, the treatment is simple. The hair need not be cut, but the head is to be anointed with petroleum, covered with a flannel cap, and allowed to remain over-night. In the morning the scalp is to be washed with soap and water. One or two such applications are all that is necessary to remove the pediculi. Care must be taken not to use too much petroleum, as it may trickle down the back of the neck and produce excoriations. In order to remove the nits, some acid or alkali must be applied and the hair carefully combed. One of the best applications is that of acetic acid diluted, or common vinegar. When the pediculi shall have been removed, we will direct our attention to the eczema and order the use of an ointment of sulphur, one drachm to an ounce of cosmoline.

SYPHILODERMA TUBERCULOSUM.

The patient, a woman 40 years of age, exhibits on the flexor and extensor surfaces of both upper extremities an eruption consisting of flat tubercles, which have melted down, forming patches of a circinate shape, varying in size from a pea to a silver quarter-dollar. About the elbows are also fissured patches which have undergone ulceration, with the formation of crusts. The same formation exists upon the abdomen and about the thighs, the lesions consisting of characteristic crescent-shaped patches of flat tubercles. They are of a dull violaceous color, not coppery as is commonly the case with the tubercular syphiloderm. The scaling is insignificant, and not as in psoriasis, with which this form of disease may be confounded. The patient says that the eruption appeared four or six weeks ago. The lesions, however, look older. They exhibit a tendency to break down and ulcerate, so that unless treatment is at once commenced the disease may extend rapidly and assume a malignant type. The treatment will be internal, and the following will be ordered:

R Hydrarg. biniodid., gr. j;
Potass. iodid., ʒiiss;
Tinct. cinchon. comp., f ʒij;
Syr. aurant. cort., f ʒij. M.

Sig.—One teaspoonful three times a day.

Locally no treatment is necessary, and in two or three weeks we may expect to find a marked improvement.

TRANSLATIONS.

THE INFLUENCE OF DIABETES MELLITUS ON THE FEMALE SEXUAL ORGANS.—The ordinary occurrence late in life of diabetes in women has prevented the confirmation of the occurrence in them of complications of the sexual apparatus analogous to those which so often occur in men.

A case recently reported by Dr. Hofmeier, however, shows that when the disease occurs in young women disturbances of the genital system are also apt to present themselves. The case was one of an unmarried woman, 20 years of age, who had menstruated regularly from her fourteenth year up to one year before the time of the report, when she attended the clinic of the Berlin Hospital for Women for relief from pruritus vulvæ. It was then found on examination that the urine contained large quantities of sugar, and that the uterus was greatly atrophied, being less than 5 c.m. in length. Examination under anæsthesia by Prof. Schroeder revealed that the ovaries were also greatly reduced in size. As all other diseases were excluded, it was concluded that the atrophy was the result of the diabetes.

An examination of the records of the hospital was then made for similar cases. It was there found that of over one thousand cases attending for pruritus vulvæ nearly all had passed the age when menstruation ceases spontaneously. In all of these the examination of the urine for sugar was only omitted in seventeen cases, and of these only three had not reached the usual age of the menopause, and in these latter diabetes could be excluded by the other symptoms. There was only one case on record in which diabetes was present during the child-bearing age, and then, unfortunately, no record was made of the state of the menstrual function. These investigations point to the fact that in women diabetes ordinarily occurs late in life, and explain the apparent exemption of the sexual organs in diabetes in women.—*Berliner Klin. Wochenschr.*, October 15, 1883.

THE PHYSIOLOGICAL AND THERAPEUTIC ACTION OF CAFFEINE.—The following are the conclusions drawn by Dr. Leblond from a study of the physiological action of caffeine:

In physiological doses it is an excitant to the nerve and muscle system and decreases the number of pulsations of the heart, while the blood-pressure is increased by an increase in the vigor of the heart's beats, and by vaso-motor constriction. It reduces the peripheral temperature, and has no effect on the composition or quantity of the urine.

In poisonous doses, caffeine increases the excito-motor energy of the spinal cord, paralyzes the peripheral sensitive nerves, and reduces the irritability of the vagus nerve. In cold-blooded animals the heart beats gradually more and more slowly, and comes to rest in systole; in warm-blooded animals the heart beats faster at the last stage of the poisoning, and stops in diastole. Tetanus of muscular origin is also produced.

As regards its therapeutic application, it is stated that in general its administration is better borne than digitalis. When a commencement is made with small doses, the unpleasant effects which often accompany the use of digitalis are absent. It reduces the rate of the heart and produces a moderate diuresis. Its use is to be preferred to that of digitalis in serious cases requiring prompt treatment, as its effects are prompt and more certain.

The administration of caffeine should always be introduced with a dose not larger than 20 centigrammes, to test the susceptibility of the individual, and then increased to 50 or 75 centigrammes: it is applicable in all cases where digitalis is indicated. It may also be used with benefit in low fevers, where its stimulant effect on the heart and its power of reducing temperature make its employment advantageous: it has also seemed to be of benefit in albuminuria.—*Deutsche Med. Zeit.*, October 11, 1883.

ETIOLOGY OF LEPROSY.—In a monograph entitled *Sull' Etiologia parasitaria della Lepra*, Dr. D. Barduzza, of Pisa, contends that (1) lepra is parasitic and contagious; (2) the contagium is represented by bacteria, which penetrate the organism in the form of threads. It is necessary that the skin shall present a solution of continuity for their admission.—*Gazette Medicale de Nantes*.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DECEMBER 15, 1883.

EDITORIAL.

THE EXPERIMENTAL PRODUCTION OF DIPHTHERIA.

IN the essay which received the prize offered by the German Surgical Society, Heubner* considers the artificial production of diphtheria from two stand-points: first, the causes of the local infection in human diphtheria, and second, the cause of the general infection. The first part is concerned with the experimental production of the diphtheritic affection of the mucous membrane.

From the investigations of Cohnheim and Litten, who found that temporary arrest of circulation produced the diphtheritic process in the tissues deprived of blood (Weigert's coagulation-necrosis), the author was led to discard the ordinary method of corrosive application to the mucous membrane, and, instead, to employ this method of temporary arrest of circulation. The bladder of the rabbit was the tissue experimented on, and his plan was to ligate the neck of the bladder with a silk thread, and to allow the ligature to remain *in situ* for two hours. The changes in the vesical mucous membrane which followed this interruption of the circulation were then studied upon the following days.

During the first day after the operation there was a marked hemorrhagic œdema of the mucous membrane; its epithelial cells were swollen and loosened. In the second day there occurred a firm, coagulated exudation at the point of the earlier changes, and on the third day, genuine diphtheritic patches were found in the mucous membrane, which were in all dis-

cernible respects identical with those occurring in human diphtheria. Subsequently there occurred a "coagulation-necrosis" of the epithelium, mucous and submucous layers of the membrane. This artificial diphtheria, therefore, originated precisely as Cohnheim has postulated,—through the union of violent inflammation and necrosis. The author also proved that the circulation was present in the diseased tissues only shortly before death.

Local membranous exudation, therefore, in man, may be explained as due to a temporary arrest of circulation in the mucous membrane through vascular spasm or through pressure, as by a swollen tonsil. The diphtheria thus produced by the author was not communicable by inoculation to healthy animals.

In the second part of his essay the author sought to produce an artificial synthesis of the local diphtheria and the general infection. He at first inoculated animals in whom this local diphtheria had been produced with the bacilli of splenic fever (*Milzbrandgift*), and found large collections of the bacilli in the diseased localities, but only within the vessels. Animals with artificial local diphtheria were then inoculated with diphtheritic matter from the human subject; the animal died in from two to three days, with all the symptoms of an acute general infection. The same result followed the employment of scarlatinal poison, and the author concludes that the bacilli which were found in both cases cannot be regarded as the diphtheritic poison. For, were this the case, they must be found in the vessels of the diseased membrane in diphtheria in man: he has, however, never succeeded in finding them there, and, moreover, the so-called specific diphtheritic fungus is not essential to the production of the general infection. He concludes, therefore, that the organisms often associated with diphtheria develop as a consequence of the disease, and not the reverse. These conclusions

* Centralblatt für Chirurg., October 20, 1883.

agree in the main with those obtained by Wood and Formad, who deny the specificity of the micrococcus which has been by some supposed to be the agent directly concerned in the propagation of the disease.

THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

WITHIN a few years the College of Physicians of Philadelphia, which, it may be necessary to inform a very few of our readers, is a scientific and social organization of medical men and not a medical school, has certainly entered upon a new and larger sphere of usefulness. Although its membership is restricted, the number of applications for fellowship is increasing, and it has now one hundred and eighty-three names upon the roll, a larger number than ever before. At every meeting this year, we believe without exception, papers have been read, the value of which the demand for the last published volume of Proceedings fully attests. At the December meeting, held on the 5th instant, three papers were read, the annual reports of the treasurer and standing committees were received, and nominations were made for officers for the ensuing year. Prof. Stillé, who has so ably presided during the past year, having declined re-election, Dr. Samuel Lewis was nominated for president. Prof. J. M. Da Costa as vice-president, Dr. R. A. Cleeman, secretary, Dr. Charles Stewart Wurts, treasurer, and Dr. J. Ewing Mears, as recorder, were renominated without opposition. Dr. S. Weir Mitchell retired from the Nurse Registry Committee, which now is well established and is a source of income to the library.

The report of the Library Committee, read by the chairman, Dr. Walter L. Atlee, contains some interesting facts. This library, which is the best private medical library in the country, and in size is exceeded only by the library of the Surgeon-

General's Office at Washington, now contains over twenty-six thousand volumes, exclusive of pamphlets and many unbound books.

This annual report showed that there have been added to the library during the past year 2186 volumes, 2107 pamphlets, and 2862 numbers of current journals.

In the collection there are 3381 duplicates, generally in good condition; and the committee wishes to call particular attention to this fact, inasmuch as it affords a rare opportunity to other libraries of augmenting their lists at a comparatively small expense.

The library is directly under the charge of the honorary librarian, Dr. James H. Hutchinson, and employs an assistant librarian and a clerk occupied in cataloguing.

The committee announces that for the ensuing year the library will be kept open, except on Sundays and legal holidays, from 10 A.M. to 5 P.M.

A Committee on Entertainment has been appointed, and, through the liberality of one of the Fellows, an Entertainment Fund has been instituted by a donation of five thousand dollars. Another well-known member of the College has given a large sum towards putting another story on the building, in order to make more room for the rapidly-growing library, and to accommodate the increasing pathological collection in the Mütter Museum, which in some respects stands unrivalled in this country.

A REMOTE DANGER OF ELECTRIC LIGHTING.

THE English medical journals have recently noticed the constant menace to life and health offered by the network of telegraphic, telephonic, and other electrophoric wires overhead in the streets, —public attention having been pointedly directed to the danger by an accident oc-

casioned by the breaking of a wire, which in its fall seriously injured a lady.

In a New York journal (*The Nation*, November 29) is an account of an accident that might easily have been even more disastrous in its consequences. On one of the avenues, a few evenings since, one of the heavy insulated wires belonging to the electric light system, by some means, fell to the ground across the roadway. A horse stepping upon it, there was a momentary flash of light, the horse fell dead, and all the lights on the avenue were extinguished. The account goes on to say that a second horse trod upon the broken wire, and he also fell dead. The streets were cleared by the police, and the wire was soon repaired. The possibility of such an accident happening to a pedestrian is a strong argument in favor of the underground system of conducting the wires; more especially since the experiments upon it in this city, not long ago, fully demonstrated the practicability of this method, which is now being introduced in our principal streets.

PROCEEDINGS OF SOCIETIES.

COLLEGE OF PHYSICIANS.

At a meeting held November 7, 1883, at the College, the President, Prof. A. Stillé, in the chair, Prof. Roberts Bartholow read a paper entitled

ENTERIC PARAPLEGIA.

By the term enteric paraplegia I intend to express the conception of a spinal paralysis produced by an intestinal disorder. It is a truly reflex paralysis. The fact of the existence of such a malady is denied by many, and indeed most of the reported examples will not bear careful inspection, for it will be found, as I shall show, that they are really cases of ascending neuritis. Eliminating such from the examples of true reflex paraplegia to be found recorded, I intend to place the latter in a special group composed of cases presenting the symptoms of an enteric disease, during the course of which a motor and sensory paraplegia manifests itself and pursues a course obviously dependent on the original lesions. The cases I have lately seen occurred in men over sixty years of age,

and each one presented a morbid complexus so distinctive and uniform as to entitle it to be regarded as a substantive affection,—a pathological entity. Although such cases have been described as examples of reflex paralysis, they have not been adequately differentiated from others similarly classified but of different nature.

Before attempting the task of analysis and differentiation, I must give a brief outline of three cases, the most recent which have come under my observation.

Case I.—Mr. R., æt. 64, merchant and banker, of very vigorous and robust frame, rather spare and bony in outline, but capable of great endurance, called on me a year ago, among other physicians of this city, for relief to an obstinate bowel-affection. His story was this. For a year or more previously he had suffered with intestinal indigestion, colic pains, flatulence, and considerable depression of spirits. Soon after these symptoms were experienced he began to have pain in the back, with more or less band-like constriction of the abdomen, a feeling of numbness in the feet and legs, a strong sense of fatigue in the inferior extremities, followed by weakness and awkwardness of movements in walking, obstinate constipation, and slowness in the emission of urine. For the relief of these alarming symptoms he consulted an eminent practitioner of this city, who diagnosed myelitis, and advised cups, the moxa, and a pill which probably contained ergot. Without using any of the local applications, Mr. R. took the pills, which had a favorable effect in relieving the flatulence and constipation, but presently dysenteric attacks supervened, and then a remarkable change ensued in the spinal symptoms. Up to this period the paraplegia had steadily increased, and walking had become exceedingly difficult, but the change in the condition of the intestine effected a revolution in the state of the spinal functions, and in the course of a few weeks all the paralytic symptoms had disappeared. Still troubled with intestinal indigestion, Mr. R. finally consulted me among others, when I learned the details of the case just given. Very recently I have heard that Mr. R. continues free from the spinal symptoms, and has in the main got rid of his intestinal disorder.

Case II.—Mr. P., a tall, thin, but hardy Quaker farmer, æt. 72. I saw the patient at his home near Delta, York County, this State, in consultation with Dr. Hickman, a very intelligent practitioner living there. I learned that the patient some ten years before had experienced a similar attack, but had recovered rather suddenly under the influence of some remedies which were then prescribed. For some years he remained comparatively free from disorders of digestion. The present attack came on during the past winter. At first there appeared a very considerable dis-

turbance of digestion,—acidity, pyrosis, flatulence, and colic pains. The distress was increased by taking food, and apparently attained its maximum when the alimentary materials entered the intestines. In fact, the symptoms of intestinal indigestion were the most pronounced throughout, and to these was added obstinate constipation, the stool consisting of balls united by masses of mucus or coated with the same. Very soon after the gastro-intestinal catarrh was established, Mr. P. began to experience numbness of the feet and legs and an increasing difficulty of locomotion.

At the time of my visit with Dr. Hickman the patient was nearly entirely disabled. The history of very severe and continuous digestive troubles was repeated. I will, therefore, to occupy as little time as possible, pass on to the objective examination of the paraplegia.

He could not stand without assistance; there was an extreme degree of ataxia; the muscles were so weak that his utmost efforts could not at all hinder slight movement of extension when the legs were flexed on the thigh; the tactile sense was so lowered that the points of the æsthesiometer could not be felt at all; the muscles responded feebly to an induction current; the emission of urine was very slow, and there was much dribbling afterwards; and the bowels were extremely sluggish. There was a feeble knee-jerk.

With attention directed entirely to the digestive trouble, beginning with an exclusive milk diet, in two weeks a marked improvement was manifest in all the symptoms, the paraplegia disappearing. In a letter recently received from Dr. Hickman, I learn that, after a period of very great improvement, Mr. P. began to decline in strength, owing to failure of the functions concerned in nutrition.

Case III.—Mr. McK., of Clearfield County, about 60 years of age, has had for many years frequent attacks of sick-headache. Within the past year, pronounced symptoms of intestinal indigestion, pain of a colicky character, flatulence, and irregular action of the bowels, etc., have come on; but the symptom which has caused the greatest apprehension, and on account of which more especially he has called on me, is an increasing numbness with some diminution of power of the inferior extremities. The tactile, pain, and temperature senses are not abolished, only slightly impaired, and the tendon reflex is unaffected. A feeling of fatigue, of weight and heaviness, is felt in the legs, but locomotion is not as yet much affected. I await further developments in the symptoms referable to the nervous system, but meanwhile treatment is directed to the gastro-intestinal disorder.

Cases similar to those which I have thus briefly outlined have been recorded by vari-

ous observers. An admirable example, and one of the first of its kind, was narrated by that eminent clinician, Graves, of Dublin (*Clinical Medicine*, edition by Neligan, vol. i. p. 558). In this case extreme gastric disturbance, with less important intestinal, came on in distinct paroxysms, varying in duration from several days to two or three weeks, and accompanied by complete motor paraplegia. For a time, entire recovery took place, the paralysis disappearing with the cessation of the other symptoms. Finally the attacks grew so frequent as to be almost continuous, and death ensued from exhaustion. The minutest examination failed to disclose a lesion in any organ of the body. With the advance in our means of investigating morbid states, such cases of presumed functional disease of the nervous system are becoming more and more rare. That there is a condition of reflex paraplegia, due to anæmia of the cord, is a postulate I expect to maintain. That there is, however, a so-called reflex paraplegia connected with diseases of the gastro-intestinal and genito-urinary tracts, which is not truly reflex, is another postulate that I believe to be susceptible of demonstration.

There was a period, in England more especially, when the notion of reflex paraplegia secondary to intestinal, renal, and genital disease was widely entertained. The cases first reported by Stanley (*Medico-Chirurgical Transactions*, vol. xviii. p. 260), Brodie ("Lectures on Urinary Organs," p. 115), Stokes ("Practice of Medicine, Treatment of Nervous Diseases"), Graves, and others, were supplemented by the striking narratives of Gull (*Guy's Hospital Reports*, various papers). Then Brown-Séquard ("Lectures on Paralysis," etc., 1861) gave a scientific explanation of the mechanism, referring the paralysis to vaso-motor action. It must be admitted, nevertheless, that the doctrine of a reflex paralysis has not maintained the position it once had. In no modern work is the subject treated with the extent and gravity befitting an important disease.

The two postulates I purpose to sustain are—

1. That there is a reflex paraplegia due to a functional disturbance of the intestine,—enteric paraplegia.
2. That there is a paraplegia having its initial seat in the end-organs of the nerves distributed to the mucous membrane, thence ascending to the cord by a progressive neuritis.

As respects the first postulate, the cases I have narrated, and many others on record, demonstrate a causal connection between the enteric disorder and the spinal. That the paraplegia is functional is proved by its prompt cessation when the cause is removed.

One of the means of determining whether a given paraplegia is due to a myelitis or to mere anæmia—that is, functional—is the sub-

cutaneous injection of strychnine. At a late meeting of the American Neurological Association, Dr. Jewell, of Chicago, recounted his experiences with considerable doses of strychnine in cases of paraplegia, which improved so remarkably that they must have belonged to the merely functional group. It is in a high degree probable that cases of merely reflex paraplegia,—of enteric paraplegia,—especially as they occur in aged subjects, are relatively frequent, and happen from a degree of intestinal disturbance that seems a mere accident of the morbid complexus.

What is the mechanism? We are helped in our consideration of this question by physiological data. Kussmaul and Tenner (quoted by Erb) have shown that sufficient loss of blood will cause paraplegia. Tying the abdominal aorta, and its obstruction by disease,—of which Gull (*Guy's Hospital Reports*, 1858, p. 311) has given a striking example,—embolic blocking of the spinal vessels, as Panum (*Virchow's Archiv*, Band xxv.) has experimentally demonstrated, and large uterine hemorrhage, as Moutard-Martin (*L'Union Médicale*, 1852) has shown, have alike stopped the spinal cord functioning. In other words, an insufficient blood-supply—an anæmia—is a cause of paraplegia. Brown-Séquard, in his Lectures, published in 1861, maintained the thesis that a strong contraction of the vessels of the cord induced by reflex stimulation is the essential condition in reflex paraplegia. We should not lose sight, in this connection, of the degree of stimulation necessary. A moderate degree of intestinal irritation suffices; for the law of reflex contraction of the vaso-motor fibres may be formulated thus: irritation of the end-organs of the sensory nerves, not too violent and long-continued, stimulates the vaso-motor centre in the medulla, and causes a general contraction of the arterioles; but excessive and protracted irritation depresses the vaso-motor centre and relaxes the vessels. It seems probable that an ordinary intestinal indigestion and the stretching of the nerve-fibres produced by retained gas is a degree of irritation sufficient to produce the supposed effect. To the further elucidation of the mechanism of enteric paraplegia, it is necessary to recall the fact that the blood-pressure in the vessels of the intra-abdominal organs rises and falls within considerable limits in quite an independent manner, controlled, doubtless, by the same ganglia that regulate the calibre of the intra-spinal blood-vessels.

The circulation within the spinal canal is peculiar, in that the veins bear such a disproportionate volume to the arteries, and that the whole vascular supply is in a certain sense a diverticulum. Atheroma of the vessels will contribute to the result of reflex irritation; and hence it is that paraplegia has resulted from endarteritis of the spinal vessels.

The second postulate is that the paraplegia

which succeeds to certain cases of enteric, renal, or genital disease is due to an ascending neuritis. Chronic dysentery, pyelitis, and vesical catarrh are affections during the course of which the spinal cord has become diseased. Lesions of continuity involving the terminal nerves in structural changes are necessary to the production of this effect. The part which ascending neuritis may play in causing anatomical alterations of the spinal cord is exhaustively shown by Friedreich in his monumental work on progressive muscular atrophy (*Ueber progressive Muskelatrophie, über wahre und falsche Muskelhypertrophie*, Berlin, 1873, Hirschwald). Whether we accept his conclusions or deny them, we cannot withhold the full measure of admiration for his labors. Starting with the theory of an intramuscular neuritis, Friedreich holds that by an extension of this affection upwards the cord is ultimately reached and the changes belonging to progressive muscular atrophy are wrought. The intramuscular neuritis admitted, the rest may easily follow. Under the term "Chronic Ascending Neuritis," Duménil has described the changes in injured nerves which, caused by trauma, proceed from the point of injury up to and involve the cord. Vulpian has especially demonstrated the modifications produced in the spinal cord by the section of a principal nerve in a member, usually the sciatic (*Archives de Physiologie Normale et Pathologique*, No. 3, 1868, p. 443). The nerves of a limb amputated, as Dickinson has especially shown, undergo degenerative atrophy, and that part of the spinal cord in anatomical connection therewith also atrophies. Many other observations might be quoted, but these will suffice to show how changes in the cord follow injuries to peripheral nerves.

In paraplegia secondary to ulceration of the mucous membrane, we can readily, I think, conceive of a lesion of the peripheral nerves, and an ascending neuritis, to which the succeeding changes are due. It follows that such cases require a very different prognosis from those of simple reflex paralysis. The course and termination of the latter are affected by the causal lesions, whilst the former pursue a steadily unfavorable direction from the beginning of the spinal symptoms. The differentiation of reflex from secondary paraplegia is made by attention to the following points:

Reflex paraplegia is sudden in its onset, or, at least, develops quickly; secondary paraplegia is gradual in its evolution: the former is soon complete in all points of its symptomatology; the latter attacks one spinal function at a time. Reflex paraplegia follows the fortunes of the producing malady; secondary paraplegia pursues an independent course, and when the alterations begin in the spinal elements they proceed in their own way, just as after amputation of a limb the changes

of the cord go on in the associated nerve-fibres, or as in Landry's ascending paralysis the lesions proceed by contiguity of tissue. Reflex paraplegia, of and by itself, never proves fatal, nor does it inflict permanent damage; secondary paraplegia may be the cause of death, and, if not fatal, effects lasting mischief.

To this view of reflex paraplegia it may be objected that extreme variations in the vascular supply must ultimately lead to structural changes. This is certainly possible; but the spinal circulation, like the cerebral, is arranged to permit considerable variations in the amount of blood.

It remains to explain, if an explanation be possible, why intestinal or renal lesions may in one case produce a merely reflex disturbance and in another set up an ascending neuritis. There are, probably, two reasons: 1st, the depth and extent of the peripheric lesions; 2d, an inherent susceptibility to degenerative changes in the nervous elements. The first, to me, has profound significance, and I have already alluded to it. A degree of peripheric irritation not too great will merely stimulate the vaso-motor centres, and cause anæmia of the cord by tonic contraction of its vessels; but when the lesions of the mucous membrane are of a destructive kind, depression of the trophic centres, as well as of the vaso-motor, ensues. That there is a neuropathic type of constitution, in which the nerve-tissues are peculiarly prone to take on morbid changes, is an indisputable fact. When the two influences coincide, the result is not doubtful.

I must, then, conclude that there is a malady which may properly be entitled *Enteric Paraplegia*.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, November 22, 1883.

The President, Dr. TYSON, in the chair.

Large intestines from two cases of chronic dysentery, one of the specimens showing pseudo-polypi. Presented by J. H. MUSSER, M.D.

CASE I.—The patient had chronic dysentery; further clinical information not given, and no record of autopsy preserved. The specimen is from the museum of the Presbyterian Hospital, and I present it to-night on account of its rarity. It is a part of the large intestine, fourteen inches long. To the naked eye it shows thickening of the mucous and submucous layers and hypertrophy of the muscular layer. On the surface of the mucous coat innumerable polypoid growths are observed, some pedunculated, some sessile. The sessile growths are from the size of a millet-seed to that of a chestnut, round or ovoid. The others also vary in size

from a pea to a large bean; their pedicle is generally one-sixteenth to one-eighth of an inch long. The reporter remembers seeing the specimen when recently removed, and knows there were more pseudo-polypi than are here visible, many having fallen off from handling, etc.; that there was scarcely any healthy mucous membrane; that in this part of the intestine there was almost complete ulceration of the mucous coat. At one point a large stellate cicatrix, depressed in the centre, is noticeable, while all over the surface cicatricial lines are observed, most distinct about the bases of the growths.

Remarks.—In connection with this specimen, I would like to call the attention of the members to a minute description of a similar specimen by Dr. Woodward. His article may be found in the *American Journal of the Medical Sciences* for January, 1881, and is entitled "Pseudo-Polypi of the Colon: an Anomalous Result of Follicular Ulceration." According to the writer, the origin and development of these polypi is as follows: 1st. A granulating ulcerated surface of the intestine. 2d. Numerous islets of mucous membrane on this surface. 3d. "The formation of cicatricial contractions commenced in the infiltrated submucosa, constricting the margins of the islets of mucous membrane, which were further transformed by hyperplastic inflammatory processes until ultimately they acquired the form of pedunculated excrescences and projected into the lumen of the intestine, like so many little polypi,"—being pushed out by the contraction of the connective tissue. Although the surface of the mucous membrane appeared to the naked eye healthy, with the microscope it showed it was submucous connective tissue infiltrated with lymphoid elements. The pseudo-polypus was composed of a central portion of connective tissue and a peripheral portion of diseased mucous membrane, the former continuous with the submucous layer, the latter limited to the surface of the growth. The histological changes in the mucous and submucous layers resembled those of chronic inflammation. The remainder of the bowel showed follicular ulceration. I am unable to say what was the condition of other parts of the bowel in the specimen exhibited.

Case II.—For this specimen I am indebted to Dr. Gittings, of West Philadelphia, for whom I made the autopsy. It was removed from a well-known druggist of this city, who had been a sufferer from chronic dysentery for some time. The bowel-affection was especially severe during the past summer. He had been ill of an acute exacerbation for about one week when Dr. Gittings was asked to see him. The symptoms were of an acute dysentery, but not alarming. The effects of the habit of using chloroform, chloral, and alcoholics to excess, which habit he continued during his illness, complicated the clinical features. About the tenth day of his illness

the typhoid state suddenly developed, and he died in coma two days thereafter. His temperature never was higher than 102° ; tormina and tenesmus were marked, bloody and mucous discharges were excessive.

Autopsy, eighteen hours after death.—Rigor mortis marked. Body well nourished. On section, the abdominal walls were loaded with fat, and large deposits of this tissue were found in the great and lesser omentum, the meso-colon, and the epiploicæ. The mesenteric and lumbar lymphatic glands were not enlarged. The cæcum was surrounded by old lymph, the appendix bound down by adhesions and thickened. The cæcum was dilated, the transverse and descending colon contracted; the walls of the entire colon were thickened. On opening the large intestine it was found to be extensively ulcerated. The mucous membrane and the ulcers were strikingly anæmic and of a pale cream-color; there were no points of hemorrhage. The walls were thickened; the mucous membrane was swollen; the ulcers were more numerous and larger in size at the cæcum. The smaller ulcers were the size of a dime; some of the larger extended around the gut, and were one-half inch to an inch wide. The edges of the ulcers were regular, bevelled, and thickened, the floor rather clean; the deepest did not extend beyond the muscular coat, the more superficial only included the mucous membrane. The larger ulcers were on the tops of the folds of the intestines. A tenacious, thick mucus covered alike the ulcers and the adjacent structures.

Condition of other organs.—Liver enlarged and fatty. Kidneys markedly cirrhotic. Spleen normal. Heart slightly hypertrophied.

Microscopical examination revealed the changes in the intestine of chronic inflammation, and that the ulceration was of a simple nature and not due to tubercle.

Case of carcinomatous sarcoma of the left testicle. Presented by Dr. W. G. MACCONNELL.

This specimen was removed from a young man by Prof. Brinton, at the surgical clinic of the Jefferson Medical College Hospital, on Wednesday, November 7, 1883.

History.—Jacob A., æt. 26 years, a clerk: about eighteen months ago he struck his testicle, in mounting his horse, on the pommel of the saddle, from the pain of which he fainted. No inflammatory enlargement, however, of the organ ensued. Last May he noticed that the left testicle had begun to enlarge, which continuously increased in size until it had attained its present volume. There was a sense of heaviness in the tumor, but no pain was experienced until about two weeks prior to its removal, when he noticed a periodical pain, of a burning nature, which, with the increasing size of the organ, caused him to apply for relief. It weighs about eight

ounces, and measures in its long diameter four and a half inches, transversely three and a quarter inches, and about two and a quarter inches in thickness. No lymphatic involvement was present, nor was the cord involved. The veins of the scrotum were enlarged and prominent. The tunica vaginalis testis is slightly thickened and very opaque. The tunica albuginea is also thickened. A slight remnant of the epididymis exists in the form of a small fibrous lump. Its shape is somewhat that of a kidney, and upon section showed a moderately firm, buffy-colored tissue. It did not cry under the knife. In color and consistence it resembled the soft fibromata. Distinct remains of the fibrous septa are to be seen. There are no cystic changes nor any chondroid tissue present. Its microscopical appearance and consistence suggested a spindle-celled sarcoma; and as such, upon section, I diagnosed it. Microscopically, at a first examination, from the great ecstacy of the epithelium present I was inclined to regard it as a pure medullary carcinoma; but, after a careful study of several sections, I am inclined, by reason of the juvenescence of the connective tissue, both round and spindle cells being present, to call it a carcinomatous sarcoma. There was no history of syphilis, scrofula, or tubercle, nor had any member of his family ever labored under any form of tumor.

Dr. NANCREDE called attention to the fact that modern microscopic study has shown that carcinoma of the testicle is a rare disease; most malignant tumors of that organ being really sarcomata. In this connection it is of much practical interest to note that the system becomes infected at a relatively late period of the disease, so that when a sarcomatous testicle is removed at an early stage of the disease, prolonged immunity, if not actual cure, may result. The inguinal and retroperitoneal glands were those usually affected, their enlargement, by pressure, pain, etc., being the ultimate cause of death. Even more distant lymphatic glands are in rare cases involved.

Dr. FORMAD agreed with Dr. Nancrede. Some years back he had paid special attention to the study of malignant growths of the testicle and ovary. Of the former he had examined thirty cases, all of which were sarcomata. He did not believe in the existence of such a growth as true carcinoma of either the testicle, ovary, or kidney. The so-called carcinoma of those organs exhibits cells of a *connective-tissue* type rather than of an epithelial. Dr. Formad considered, with many other observers, that the so-called epithelial cells of kidney, testicle, and ovary are really *endothelial*, and gave reasons in support of this view. He further said that there is a variety of endothelial carcinoma occurring in the breast, which is that usually described as alveolar sarcoma. Here the endothelial cells of the

lymph-spaces proliferate, but the glandular elements of the mammæ do not participate. It is doubtless from the examination of such tumors that Virchow, and Cornil and Ranvier, have gained the erroneous idea that true carcinoma takes its origin from connective tissue. The speaker would suggest the term "*endothelial carcinoma*" for such tumors instead of "*alveolar sarcoma*."

Dr. DAVIS could not think that Dr. Formad was correct in absolutely denying the existence of carcinoma of the testicle, ovary, and kidney.

Dr. MACCONNELL agreed with Dr. Nancrede as to the relative frequency of sarcoma of the testis, having examined a large number of such specimens. He could support the views of Dr. Formad as to the growths of the testicle originating largely in proliferation of the endothelia of the lymph-spaces and tracts.

Sarcoma of the breast. Presented by Dr. G. E. DE SCHWEINITZ.

Some weeks ago, I had the pleasure, through the kindness of Dr. Ashhurst, of exhibiting a specimen of cysto-sarcoma of the female breast, and to-night I am once more indebted to him for the privilege of showing this tumor, also a cysto-sarcoma, but differing in type from the previous growth. It is another instance of the truth of the remark, so justly made by Rindfleisch, that the expression cysto-sarcoma is by no means to be conceived as the designation of a definite, perhaps round-celled sarcoma, with cysts, but it only tells us that a new formation with the textural character of histoid tumors had attacked the mamma and dilated its pre-formed cavities.

This growth was removed from the person of a lady of middle age, married, but childless. She assigns no cause for its appearance. The growth of the tumor has been slow, it having originally been noticed six years prior to the date of operation. The weight of the mass immediately after removal was three pounds and one ounce. On palpation there was a distinct sense of fluctuation. The skin over the tumor was discolored, but not adherent. On section the growth is seen to be composed of two parts, the one about the size of a closed fist and the other somewhat smaller. The section evacuated a quantity of bloody, mucus-like fluid. The centre of each mass is seen to be cystic, or, rather, the masses are the papillary and irregular excrescences which have protruded into the dilated ducts. The growth is composed of numbers of variously-shaped nodules, whitish or yellowish-white in color, but in some spots semi-translucent and resembling somewhat colloid material. The microscopic examination of various portions shows a similar result, differing only in degree; large round-celled sarcoma tissue, and some spindle cells,

generally diffuse, but in places tending to alveolar arrangement, here and there round, stellate, and spindle cells branched and anastomosing (mucoid tissue), numerous blood-vessels, usually wall-less, or mere channels passing through the tissue. In many places the sections show the enlarged ducts cut transversely and lined with a single layer of columnar epithelium. Surrounding them is a dense matrix of connective tissue. It may not be uninteresting to state that the specimen has been preserved in a solution of hydrate of chloral (gr. xx-f3j), after the manner originally recommended by Dr. W. W. Keen, with what success the beautifully-fresh and natural appearance of the growth plainly attests.

C. B. NANCREDE,
Recorder.

NEW YORK PATHOLOGICAL SOCIETY.

A REGULAR meeting was held November 28, 1883, GEORGE F. SHRADY, M.D., President, in the chair.

HYDROCEPHALUS.

Dr. H. N. HEINEMAN presented the brain of a child who died at about the age of two years, at the Mount Sinai Hospital, with the history that when about two months old it fell upon the head from a chair, since which time it had not been well. There had also been an eruption upon the body. About the twelfth month the head measured in its occipito-frontal diameter twenty-three centimetres, and from ear to ear posteriorly fourteen centimetres. There was a perceptible increase in size the last six weeks of life. There was an elevation of temperature preceding death; some vomiting; no convulsions. The patient lay in bed, with the head resting upon a pillow. It was quite small for a child two years of age: at death the body weighed twelve pounds. The chief interest of the case related to the brain, the convolutions of which had been greatly thinned and unfolded by the action of the fluid within the ventricles. The fluid amounted to more than a quart. There was no distention of the central canal of the cord. There was slight broncho-pneumonia, which probably had been the immediate cause of death.

SARCOMATOUS TUMOR OF THE STERNUM.

Dr. CHARLES HEITZMAN presented the specimen, and said that the patient, a physician, had come to him in April, 1882, to have his blood examined under the microscope, thinking that he was suffering from leucocythæmia. Dr. Heitzman found the opposite condition from what the patient expected,—a diminished rather than an increased number of the colorless blood-corpuscles. Afterwards, some specimens of fluid obtained by aspiration of a small tumor over the sternum were

sent him for examination, but the first examination was negative. The last specimen, however, presented appearances which were believed to indicate approaching dissolution. The patient died, and at the autopsy the body was found greatly emaciated. The tumor over the sternum, now the size of a large egg, communicated, through a small opening in the sternum, only large enough to admit the little finger, with a cavity in the anterior mediastinum below, which contained blood. The pleura and the apices of the lungs were transformed into dense, fibrous connective tissue, believed not to be of malignant character. The tumor itself was a sarcoma. The spleen was enlarged and very firm. The patient had suffered from malaria. The liver was the seat of interstitial hepatitis.

In reply to a question, Dr. Lange said that clinically the tumor had been regarded as a sarcoma.

Dr. HEINEMAN thought it was the rule that in carcinoma and sarcoma of the lungs and in pleura the diagnosis was not made out during life.

Dr. VAN GIESON referred to a case in which the malignant process commenced in the lung and extended to the sternum, and in which there had been no difficulty of diagnosis. Statistics of a large number of cases gave a correct diagnosis during life in forty-five per cent.

Dr. HEITZMAN had once made the diagnosis of sarcoma of the lung from the presence in the sputa of a large number of globular elements, smaller in size than pus-globules. A diagnosis of carcinoma of the lung had been made by the physicians in charge. The autopsy showed sarcoma.

ACUTE PYÆMIA OF URETHRAL ORIGIN.

Dr. G. L. PEABODY presented the heart of a man who had died of acute pyæmia of several days' duration, following the introduction of a sound into the urethra. There had been stricture at the bulbous portion, necessitating the use of the catheter. When the sound, No. 15, was passed, but little injury was believed to have been produced. Notwithstanding, a chill and fever followed, and led to death. Pericarditis and endocarditis had been diagnosed during life. At the autopsy there were found well-marked signs of pericarditis and ulcerating endocarditis, and also commencing abscess of the kidney-structure. In the blood-vessels in the neighborhood of the abscesses in both the kidneys and the heart were large numbers of micrococci.

GREAT DILATATION OF THE URETER IN A CHILD.

Dr. R. VAN SANTVOORD presented the ureters of a child, 12 years of age, who was admitted to the Randall's Island Hospital, with the following history. At the sixth month of age an operation, the nature of which could

not be learned, was performed for spina bifida, the cause of paraplegia and of paralysis of the sphincter of the rectum and of the bladder. The operation resulted in cure of the spina bifida, with return of power to the legs and the sphincter ani; the difficulty with urination continued. A catheter was passed on admission to the hospital, and a quart of urine withdrawn. The catheter continued to be passed daily. The patient lost appetite, had nausea and fever; the urine was turbid and contained pus and albumen. Death took place in three months, from exhaustion. At the autopsy the vesical walls were much thickened and sacculated, the left ureter enormously distended, being larger than the small intestine. The pelvis of the kidney was also dilated, and the organ itself contained abscesses. The right ureter was less dilated, and the right kidney also contained abscesses. They were not permitted to examine the spinal cord.

EXTIRPATION OF METACARPAL BONES FOR BUNION.

Dr. L. H. SAYRE presented metacarpal bones removed from both feet of a man who had suffered for years from bunions which had given much trouble and on two occasions had been the seat of ulceration. An incision was made on the dorsal aspect of the members, the affected metacarpal bones were removed with the bone forceps, and the edges of the wounds were closed with black silk. Union took place inside of two weeks, and the patient was soon able to be about with comfort, and had a movable joint.

ULCERATION OF STOMACH PRODUCING FATAL HEMORRHAGE—OBSCURE SYMPTOMS.

Dr. BEVERLY ROBINSON presented the specimen, which was removed from a man, a salesman, who entered St. Luke's Hospital, having suffered for some time with difficulty of breathing and cardiac palpitation. On admission there was slight mental alienation; the feet were œdematous; there was some albumen in the urine; there was double pleuritic effusion; the heart was enlarged and dilated. His condition changed but little until November 19, when his face was observed to be very pale. He was breathing with difficulty, and in this condition he soon died. A considerable serous effusion into the pleural cavities was found; the heart was dilated; there was no valvular lesion; the lungs were in a state of brown induration; the stomach was distended with blood, which had escaped from an open blood-vessel at the seat of an ulcer at the pyloric orifice. The interest of the case was the presence of so large an ulcer, and of internal hemorrhage resulting in death, with so obscure symptoms. It was remembered that there had been some discharge of a bloody fluid from the rectum the evening previous to death. Digestion had been good.

PARIETAL ABSCESS—MENINGITIS—DEATH.

Dr. W. P. NORTHRUP presented the skull and brain of a child which died when about eight months old, having had for two weeks preceding death an abscess of the right parietal bone. The cause of the abscess was unknown, and the symptoms produced were very slight, such as scarcely to attract attention. There was some irritability, hyperæsthesia, and stiffness of the muscles of the neck. At the autopsy the convexity of the brain was coated by a thick layer of pus; no direct relation could be traced between the parietal abscess and the inflammation of the membranes of the brain pathologically.

Dr. W. M. CARPENTER asked if the meningitis might not have developed independently of the external abscess.

Dr. PETERS remarked that a number of cases had been published in the Transactions in which direct extension of the inflammatory process could not be traced from the external abscess to the membranes within.

A VERY THIN SKULL.

Dr. J. A. WYETH presented part of a skull which had broken to pieces with a slight blow of the hammer when he was about to open it for demonstration to his class. The bone was but little more than one-sixteenth of an inch thick. He inquired, would not this condition explain how fracture and death occurred in some cases where but a slight blow had been inflicted upon the head?

PHILADELPHIA COUNTY MEDICAL SOCIETY.

At a conversational meeting, held at the hall of the College of Physicians, Philadelphia, November 21, 1883, Dr. William M. Welch, President of the Society, in the chair, Dr. J. H. Musser read a paper entitled

FURTHER NOTES ON THE USE OF HAMAMELIS IN THE TREATMENT OF VARICOSED VEINS.

After referring to his original paper in the *Medical Times*,* which first called attention to the use of hamamelis in the treatment of varicose veins and their sequences, he reported the subsequent experience of a number of clinical observers upon its effects, several of which confirmed his statements as to the value of the remedy in varicose veins. The fluid extract—a dark-colored preparation—is used in doses of a drachm three or four times daily. It had also been found useful in phlebitis of chronic Bright's disease, hæmaturia, menorrhagia, and bleeding hemorrhoids; cases of which were mentioned in the communications he had received in response to the original paper. The combined testimony

shows that the remedy has a decided effect upon the venous structures.

NOTE ON PARALDEHYDE AS AN HYPNOTIC.

J. C. Wilson, M.D., read a note upon paraldehyde, in which he gave a description of its physical characters and chemical constitution. A limpid fluid of an ethereal taste and odor, it may be administered internally in doses of half a fluidrachm to two fluidrachms well diluted with water. Given in this way, it produces drowsiness without preliminary excitement, and it has been utilized by Italian physicians in dementia paralytica, in hysteria, and in other forms of disorder of the nervous system. In several cases mentioned by the lecturer it acted well as an hypnotic, its usefulness being shown most markedly in a gentleman suffering with depression and sleeplessness after a debauch, upon whom bromide of potassium and chloral, in reasonable doses, failed to have any influence. In its action it most resembles chloral, and it may prove a useful addition to our sleep-producing drugs.

REVIEWS AND BOOK NOTICES.

THE MEDICAL STUDENT'S MANUAL OF CHEMISTRY. By R. A. WITTHAUS, A.M., M.D., Professor of Chemistry and Toxicology in the University of Buffalo and the University of Vermont, Professor of Physiological Chemistry in the University of the City of New York, Chemist to the City of Buffalo, etc. Wm. Wood & Co., New York. 8vo, pp. 356.

While occupying the position of municipal chemist, and filling the chairs of chemistry in three colleges in cities far separated, Dr. Witthaus has found time to produce two textbooks. The Student's Manual is, in a measure, a new edition of the "General Medical Chemistry," written by Dr. Witthaus for Wood's Library of 1881. Medical students will find it generally satisfactory, as it contains more or less information on all of the more ordinary chemical compounds, as well as many of the rarer substances.

Due prominence is given to the description and instructions for examination of constituents of the body, urine, etc. It is to be regretted, however, that the details of analytical methods are printed in type so small as to tax the eyes severely.

That portion of the book devoted to the compounds of carbon is rather more extended than required in a work intended for students. Indeed, the molecular structure of carbon compounds, as here explained, could hardly be understood by one who had not already studied the subject, in which case the graphic formulæ would be superfluous.

Dr. Witthaus has abandoned, as arbitrary and unscientific, the classification of the ele-

* For April 21, 1883.

ments as metals and non-metals, but retains the terms metal and non-metal for the sake of convenience.

We notice that glucinum is classed with aluminium, while its atomic weight as given would require its introduction into the magnesium group.

Considering the difficulties in the way of combining the chemistry of the Pharmacopœia, general, medical, hygienic, with theoretical chemistry, we think that Dr. Witthaus has fairly succeeded in his task.

G.

THE COLLECTIVE INVESTIGATION OF DIPHTHERIA, AS CONDUCTED BY THE THERAPEUTIC GAZETTE, DETROIT, MICHIGAN. WITH AN EDITORIAL SUMMARY BY J. J. MULHERON, M.D. Detroit, G. S. Davis, 1883. 8vo, pp. 120.

This book is made up of the replies of one hundred and four practitioners in the United States, of three in Canada, and of one in an unaccredited locality, to the following queries:

"1. What is your opinion in regard to the local or constitutional nature and treatment of diphtheria?

"2. On what clinical facts observed by you do you base your opinion?

"3. What is your opinion as to the contagiousness of diphtheria?

"4. What facts in your experience bearing upon this question?

"5. What microscopic examination, if any, have you made of the diphtheritic membrane?

"6. What measures, if any, have you adopted by way of prophylaxis, and what success has attended those efforts?

"7. What local treatment have you found most efficacious?

"8. What general treatment has been most successful in your hands?"

The replies are in many instances as vague as the questions, and embody views almost as diverse as the localities whence they come. This does not, however, relieve in the slightest degree the sense of annoyance produced by one hundred and eight repetitions of more or less concisely expressed opinions upon the same subject,—an iteration altogether beyond that to which it has grown customary to apply an adjective by no means polite. Nor is the editor's summary of this scattering vote altogether satisfactory. It seems an expression of his personal views of the matter rather than those of the majority represented. The result would have been by far more valuable if the questions had been so framed as to accumulate *observed facts* rather than *mere opinions*. No one would expect to obtain satisfactory knowledge of the depth of a body of water by questioning the men composing the crew of a ship sailing it. The man heaving the lead would know, but the others would be able only to guess at it. Moreover, the depth is not everywhere the same. To consult the charts of the coast survey would give

definite information. Where no such charts exist, or where they are incomplete, it behooves those interested to collect with all diligence the facts (not any man's opinion) with which to construct them. The etiology and pathology of diphtheria are yet involved in the most dense obscurity. Laborious research, conducted in the spirit of science, proceeding step by step, alone is capable of the solution of such questions. That is not the method pursued in the investigation of which this volume is the record. If ten times one hundred and eight practitioners had contributed to it, the advancement of knowledge would have been just the same.

J. C. W.

A DICTIONARY OF THE ENGLISH LANGUAGE. By JOSEPH E. WORCESTER, LL.D. New Edition, with Supplement. Philadelphia, J. B. Lippincott & Co., 1883. Quarto, pp. 2058.

Worcester's Dictionary of the English Language, which in the recent edition is the most complete ever published, as a work of reference is thorough, accurate, and trustworthy. It has been adopted as the standard authority for the English language by distinguished men of letters and scholars of this country, by the various departments of our national government, and by the great newspapers. The present edition of this classical work contains over a hundred thousand words, twenty thousand more than any preceding work of the kind, its definitions are clear, satisfactory, and concise, it is well printed and amply illustrated. It also contains chapters upon Principles of Pronunciation; Orthography; English Grammar; Origin, Formation, and Etymology of the English Language; Archaisms, Provincialisms, and Americanisms; History of English Lexicography; Pronunciation of Greek and Latin Proper Names; Scripture Proper Names; Modern Geographical Names; Names of Distinguished Men of Modern Times; Abbreviations used in Writing and Printing; Words, Phrases, and Quotations from the Greek, Latin, French, Italian, and Spanish Languages; and a Supplement, with Additional Vocabulary and Synonymes. At the present time, when a special effort is being made to sell dictionaries to professional men, we think it proper to call the attention of physicians to the importance of having a copy of "the Standard English Dictionary" for reference in all cases of doubt or dispute as to orthography, orthoëpy, or definition. For professional men there is no rival to Worcester; without it no library is complete; with it other English dictionaries are, for ordinary use, superfluous.

A TREATISE ON THERAPEUTICS. By H. C. WOOD. Fifth Edition. Philadelphia, J. B. Lippincott & Co., 1883.

This work has been in its successive editions so thoroughly reviewed in these columns

that we cannot accord more space than is necessary for the announcement of the rapidly succeeding revisions: indeed, latterly the editions come so fast that they seem like a succession of dissolving views. Although all parts of it have been brought up to the latest dates, the chief alteration in the present volume, compared with its predecessor, is the adaptation to the Pharmacopœia of 1880.

INSANITY CONSIDERED IN ITS MEDICO-LEGAL RELATIONS. By T. R. BUCKHAM, A.M., M.D. Philadelphia, J. B. Lippincott & Co., 1883.

This rather odd and interesting book opens with an introductory chapter which is very consoling to the medical man who has been berated by some legal opponent, because it shows what a chaotic mass of contradictions and foolishness is the law, as enunciated from the lips of its judges. This Introduction portrays, indeed, the failure of the pure psychical theory of insanity, but is also largely composed of pithy condensations of judicial opinions, which are given more fully and with full references in the Appendix.

Chapters ii., iii., and iv. are respectively devoted to the discussion of—first, the “physical media” theory,—i.e., the theory that the mind is an incorporeal or distinct essence working through a physical medium the brain, and that insanity is due to disorder of this instrument; second, the “somatic or materialistic” theory, that thought is a brain-secretion; third, the “intermediate” theory of Wharton and Stillé. We agree with Dr. Buckham that the exact nature of the latter theory—the exact meaning of Wharton and Stillé—is hard to make out; but either Dr. Buckham or ourselves have failed to grasp it, for his many pages seem to us not exactly to the point.

We must confess to weariness and distaste for these discussions, which must always end, to our thinking, where they start, because they are concerning that which is beyond the limits of human science. If a man's nature, education, belief, or what not, make him a materialist, he will believe in the somatic theory of mind, whereas if he start from a Christian stand-point he will believe in some form the physical media theory. The practical outcome is merely that we can know mind only through matter, and that an insane man is one with a perverted brain.

The early part of the fifth chapter of the book ought to be read aloud by the crier in every criminal and civil court in the land, and committed in extracts to memory by every Governor: then might we hope to see expert testimony less farcical than it now is. The following extract will show the drift of this chapter:

“Judges ought to know, lawyers ought to know, and the public ought to know that general medical practitioners, however able and

deserving of confidence they may be as such, are not experts in insanity; that no amount of general will compensate for the want of special knowledge; that they know no more respecting insanity than any equally well educated person outside the profession of medicine, and to the practice of using such physicians as experts is due largely the disgraceful character of the verdicts in every trial in which insanity is an element.”

In America there is always a tendency to worship the man whose work is palpable, and the surgeon has blood, legs, arms, and what not, to show for his labor, so that he is glorified by the crowd. It would perhaps be too much to expect the average surgeon not to share the popular prejudice as to his own superiority, but we once did hear a *great* surgeon say in court that because he was a surgeon therefore was he not a neurologist. Most numerous are, however, the little surgeons: so now, when in this city an insane commission is to be appointed, or an opinion to be delivered as to mental capacity, to the front goes the man of the dissecting-room and the surgical ward, and the hewer of flesh essays to be the gauger of intellect.

The latter portions of the fourth chapter are occupied with an elaborate and very able discussion of the question whether the expert or the judge should decide the question as to the sanity or insanity. It is clearly shown that common sense lays the responsibility upon the expert, but it is equally apparent, especially from the pages of Wharton and Stillé, as reproduced in the foot-notes, that under our present system of trial it would not be proper to take away the power and responsibility from the judges. We agree with our author that our whole system of trial is an abomination and ought to be reformed. Whether or not the elaborate scheme he suggests would be practicable, this is scarcely the place to discuss.

H. C. W.

ARCHIVES OF OPHTHALMOLOGY. Edited by Dr. H. KNAPP, of New York, and Dr. C. SCHWEIGGER, of Berlin. Vol. XII., Nos. 3 and 4. New York, G. P. Putnam's Sons, 1883.

Numbers 3 and 4 of this well-known journal appear in one publication, completing vol. xii. Thirteen original articles are contributed, the last one being the usual ophthalmic summary so essential to all who wish to keep pace with the progress of ophthalmology. The remaining articles may be thus classified: 1. Brief ophthalmic studies: (a) On the Representations of the Limits of the Visual Field, by Hilbert, of Königsberg. This paper has reference to the imperfect representations of the visual field afforded by the ordinary perimetric chart, and offers formulæ by means of which the latter may be transformed into a field such as would be obtained by the ordinary black-board. (b) The Focal Line in Astigmatism.

In this paper Dr. Swan Burnett calls attention to the error of applying the term focal plane to a plane supposed to pass through a focal line of an astigmatic system, and develops the distinction which exists between corneal astigmatism and the astigmatism of a system composed of a spherical and cylindrical lens.

(c) Interchange of Liquids within the Eye, as shown by Injections of Fluorescein, by Ulrich, of Strasburg. Dr. Ulrich contributes the results of some additional investigation with fluorescein, and offers an explanation of the formation of the vertical line of Ehrlich. 2. Reports of Cases: (a) Tubercular Tumor of Choroid, by Swan Burnett, M.D. The removal of the eyeball in this case was followed by induration and softening in front of the ear of the same side, induration of the cervical lymphatics, ulceration of the conjunctiva, death apparently from phthisis. Drawings showing a longitudinal section of the eyeball and the microscopic appearances illustrate the paper. (b) Wound of Eye by a Cross-Gun Missile, by Webster, of New York. In this case there was found a cystoid cavity in the iris. (c) Eye Symptoms of a Case of Gliosarcoma in the Left Occipital Lobe, by Tany, of Breslau. Dr. Tany is inclined to refer the defect of the visual fields in this case to the lesion of the cortex of the left occipital lobe; it seems to us that he lays too much stress on this defect in his paper, as it cannot be regarded as a pure instance of right hemianopia. (d) Ectopia of the Eyeball induced by Orbital Osteophytes, by Birnbacher, of Grätz. This is a rare case, well reported. (e) An Anomaly of the Optic Nerve, by Purtschen, of Klagenfurth. This anomaly consists in an elevation of a sector of the optic nerve. We suppose all careful observers have recognized this anomaly. 3. Elaborate clinical studies: These are The Eye-Disturbances in Tabes Dorsalis, by Schmeichler, The Relations between Cerebral and Ocular Disease, by Nieden, Ocular Lesions after Injuries of the Brain and Spinal Marrow, by Nieden, Neurasthenia, by Wilbrand, of Hamburg. We hope to give abstracts of these papers in the next ophthalmic report, and defer critical notice of them for the present. All the articles referred to in this notice will be read with interest, and we commend those under the third heading to the attention of those practitioners who are accustomed to employ the ophthalmoscope as an aid in the diagnosis of disease. H.

A MANUAL OF PRACTICAL HYGIENE. By EDMUND A. PARKES, M.D., F.R.S. Edited by F. S. B. F. DE CHAUMONT, M.D., F.R.S. Sixth Edition, with an Appendix by F. N. OWEN. Vol. I. New York, William Wood & Co.

This new edition comes to us in the form of the September number of Wood's Medical Library. The work has been so long and so favorably known that but little is left to critics

but to repeat the encomiums which have been bestowed upon previous editions. The public interest in questions of preventive medicine is undoubtedly rapidly increasing: all departments of the science are being placed on a scientific basis, and the right of the State to preserve the public health by measures as summary as those by which it preserves public morals is gradually being acknowledged. On every side we see the tendency to appoint State Boards of Health, State chemists, and other official care-takers. We may regard this tendency as to a certain extent a reaction from the indifference with which public hygiene has long been regarded, and also a result of the recent developments in the theories of the origin and development of disease.

Under these circumstances the work of Parkes becomes especially valuable. Its author was a man of large practical experience and sound common sense. Every page of the work shows a disposition to avoid that sensational spirit which has been often displayed in the literature of hygiene. The first volume is devoted to the subject of water, air, food, and soils, principally considered in reference to civilian life; the discussion of military hygiene is deferred to the second volume. One hundred and eleven pages are devoted to water, and all the recognized methods of chemical and microscopical analysis are given. The preference is given, naturally, to Wanklyn's ammonia process, which has won of late years so much favor among water-analysts on account of its simplicity and the supposed trustworthiness of the data it affords. Very recent investigations have, however, somewhat altered its standing, and at the present time chemists may be said to be without any definite method of determining the potability of a water. The question is, indeed, largely an engineering problem.

In the department on food we notice that the sensible view is expressed that the butter-substitutes—*e.g.*, butterine—are not hurtful. A statement like this from high authority will go far towards upsetting the sensationalism which has been attached to this subject.

Concerning the topic of alcoholic beverages the language of the work is clear and positive, and the questions as to the effects of alcohol on the human system are discussed thoroughly. The array of facts presented leaves no doubt of the inadvisability of the use of even small quantities of alcohol as a part of our regular diet.

It is scarcely necessary to allude to the general fulness and accuracy of detail which characterizes all parts of the volume. It is a complete manual of hygiene, suitable both for student and for practitioner. Very few typographical errors occur. We notice a few: for instance, in Plate VI., Figure 1 should be 1'.

The general execution of the work is of good quality, the plates and cuts are well printed, and the type is clear. H. L.

GLEANINGS FROM EXCHANGES.

SUCCESSFUL RESECTION OF THE PYLORUS.

—The *Wiener Medicinische Wochenschrift* (Nos. 23 and 24) contains an account of a successful resection of the pylorus, and some observations on a gastroscopic symptom of cancer of the stomach, by Professor Mikulicz, of Cracow. The patient was a peasant, 25 years of age, the mother of three healthy children. Up to five months previously she had been in perfect health, but since that time had suffered from bad appetite, and discomfort and pain in the stomach occurring some hours after food. For the last three months she had, in addition, suffered from repeated vomiting. On admission to the Cracow Hospital, on February 9, 1883, her condition was as follows. Nutrition fairly good; skin and mucous membranes pale; both breasts swollen, red, and painful to pressure (the patient having only just weaned her last child), but not diseased; abdomen somewhat distended; abdominal walls thin; in the epigastric region a hard, apparently movable tumor, the size of a goose's egg, and painful to pressure, was made out. The stomach was considerably distended, its lower border reaching to three fingers' breadth below the navel. Bowels constipated; urine normal. The diagnosis of carcinomatous stricture of the pylorus was made. For the two days preceding the operation, which was performed on February 22, the patient had only fluid diet, and immediately before it the stomach was washed out with warm water. The operation was performed in the usual manner, and lasted two hours and a half. The tumor was freely movable. No spray was used, and iodoform dressing without drainage was employed. The portion removed measured three inches in length, and included, of course, the pyloric opening, which was found to be so narrowed that a little finger could scarcely be passed through it. Microscopic examination showed the growth to be a colloid cancer. An enlarged lymphatic gland removed at the same time showed no trace of cancer-elements. There was very little shock after the operation, the pulse the same evening being 72, and the temperature 98.5°. On the evening of the second day the patient vomited twice, and several times on the third, fourth, and fifth days; but on the sixth day the vomiting ceased. The vomited matter consisted each time of mucus without any admixture of bile. The pulse and temperature remained normal throughout, except on the fifth day, when the temperature reached 103.5° and the pulse 112, and on the evening of that day the patient had an offensive diarrhoea. During the first five days she took cold water by the mouth, and was fed by the rectum with peptonized enemata. On the sixth day she had soup and eggs, and on the eighth solid food. On the twentieth day the dimensions of the

stomach, were normal, and the patient suffered from no gastric troubles. On March 22, the twenty-eighth day after the operation, she left the hospital in good health.

From a consideration of the absence of all signs of peritonitis in the case, from the course which the wound took, healing by first intention, from the considerable dilatation of the stomach that existed from the third to the fifth day, and from the character of the vomited matter, Mikulicz considers that the vomiting was due to a complete but temporary obstruction of the new pyloric orifice. The cause of the obstruction he thinks might have been due to an inflammatory swelling of the wound at the pylorus, or the dilatation of the stomach and the weakness of its walls might be insufficient to propel the contents through the new orifice. According to Mikulicz, thirty-two cases of resection of the pylorus have been published, of which twenty-four ended fatally and eight recovered. Of the eight successful cases, two were operated upon for ulcer of the stomach, and six for cancer. Of the twenty-four unsuccessful cases, twenty-three were for cancer, and one for ulcer. In twenty-one of the twenty-four fatal cases the cause of death is given. Fifteen died of collapse, one of inanition, and five of peritonitis, —the peritonitis in two cases being due to perforation at the seat of union, and in two cases to gangrene of the transverse colon. These four fatal cases of peritonitis, and the case of inanition, were due to causes which at the present time might be avoided. The large number of cases which died of collapse, Mikulicz considers with Billroth to be due to the general marasmic condition of the patients, and to the severity of the operation in those cases where the tumor was large and had formed adhesions to neighboring parts. Only cases where the patient is well nourished, and the tumor of moderate size and movable, are, he considers, suitable for operation. The future of resection of the pylorus depends, he holds, on improvement in the diagnosis of cancer of the stomach at an early stage, and he looks to the general use of the "gastroscope" as likely to afford valuable aid in that direction. In a large number of cases of cancer of the stomach examined by him he has found certain appearances and symptoms which may be of use in diagnosis. In a healthy man, the pylorus, examined "gastroscopically," appears as a longitudinal, oval, or triangular slit, or as a circular opening surrounded by close, bright-red mucous projections and folds. Owing to the irritation caused by the instrument and to the inflation, the opening is continually changing its shape, and the folds moving with each contraction of the muscular wall. The fundus of the stomach, on the contrary, remains stationary. In cases of cancer of the stomach he has noticed that the coarse folds are either entirely wanting, the walls being quite smooth,

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or are only slightly marked; and, secondly, that the movements are altogether wanting. Also in certain cases he has noticed considerable pallor of the pylorus; in others quite a dark cyanotic appearance. In one case the submucous veins were dilated, and of a deep-blue color. No ulceration of the cancerous mass has he ever seen. The explanation of these changes he considers to be that, the walls of the stomach being infiltrated by cancer, the movable organ is changed into a comparatively rigid tube, in which the formation of folds and the changes in shape cannot occur.—*Medical Times and Gazette*.

TWO CASES OF ABSINTHE-POISONING.—Dr. Albert S. Adler, of Lordsburg, New Mexico, writes, "A few nights ago I was called upon to attend two individuals who had been drinking heavily and were now in convulsions. Hastening to their place of abode, I found one of the patients, a woman, in an epileptiform convulsion,—unconscious, small pupils, and frequent and small pulse. The other was also unconscious, but not then in spasms. All questions in regard to poisoning were altogether refuted by the other inmates of the house. I was about to resort to some stronger means in order to relieve their sufferings, when the young girl, returning suddenly to complete consciousness, claimed that she and her male friend had partaken of over a quart of some alcoholic liquor, the principal part of which was absinthium. The epileptic convulsions had commenced half an hour prior to my arrival, and, as before stated, lasted in the girl but a short time during my presence: they had been more vehement and frequent in her, because she had taken a larger quantity. The man was restored to his senses by slapping his face with wet towels. These cases of epilepsy are of more frequent occurrence than generally supposed. Magnan ('De l'alcoolisme, des divers formes du délire alcoolique,' etc., Paris, 1874, and *Annal. Méd. Psych.*, 1874, page 302) was the first to describe the danger of absinthe-drinking. His experiments on animals, as well as observations on man, have demonstrated that it was not the alcohol which brought forth the spasms, but that the absinthium was the source of the vehement symptoms. Alcohol occasions delirium and tremor, absinthium these two and epilepsy in acute alcoholism. Small doses of wormwood given to animals have the effect of producing tremor of the muscular system, dizziness, and in a surprising manner upstarts of individual muscles, in larger doses a completely-formed epilepsy. In man, besides the alcoholic delirium, epilepsy is noticed. Among three hundred and seventy-seven persons addicted to the use of alcohol, Magnan found, in 1870, but thirty-one epileptic cases, and in 1871, among two hundred and ninety-one, only fifteen. In France it is regarded by the legal authorities as a poison, and only allowed to be sold in drug-

shops. Magnan comes to the conclusion that if epileptic attacks happen in acute alcoholic poisoning, it was only in absinthe-drinkers, and that acute alcoholism without epilepsy, but with tremor of any degree, was seen only in persons partaking freely of wine or whiskey."—*Medical Record*.

LYMPHO-SARCOMA.—A number of specimens illustrating a malignant form of Hodgkin's disease were exhibited by Dr. Carrington at a recent meeting of the Pathological Society of London. The patient, a woman, aged 55, had died in Guy's Hospital under the care of Dr. Goodhart. She stated that she had first noticed swelling of the glands on the left side of the neck in June, 1882; in August following, the legs and abdomen became swollen. When admitted, on February 7, 1883, she was very anæmic and emaciated, and the subcutaneous tissues were generally œdematous; the cervical, submaxillary, axillary, and inguinal glands were enlarged; the spleen was very large, reaching as low as the crista ilii. An examination of the blood showed that there were about 4,720,000 red corpuscles to the cubic millimetre, and about 4.3 white corpuscles to every thousand red corpuscles. A week after her admission she was seized with palpitation; there was no fever, but the urine was found to contain a trace of albumen, and the patient died the same day. At the post-mortem examination, in addition to the great enlargement of the superficial glands noted during life, the mediastinal glands were found to be enormously enlarged, extending along the bronchi into the lung, but not involving the pulmonary tissues. The stomach was studded, on its mucous surface, with numerous cream-like flattened tumors; the pyloric orifice was involved, but the duodenum was free from disease. The valvulæ conniventes of the small intestine below the duodenum began to show disease, being firmer than natural, and swollen; lower down they became polypoid and creamy. The solitary glands and Peyer's patches were enormously swollen; the cæcum contained a mass of growth that weighed half a pound; the spleen, though greatly enlarged, and weighing forty-four ounces, retained its natural form, and it was everywhere permeated by a soft new growth. Microscopic examination of the growth showed it to be of a lymphomatous nature. Dr. Carrington had been able to find only four similar cases recorded in the Transactions of the Society. The president considered the case to be of great interest; he had never seen a similar one. Dr. Pye Smith referred to a case of this kind recorded by Dr. Behier about twenty years ago, which was, he believed, the earliest on record; it was a case of lymphatic overgrowth of the lymphatic structures of the intestinal canal. Dr. Sydney Coupland observed that an instance of this disease had

been preserved by Cruveilhier in his Atlas; it was probably the earliest case of which any note remained.—*British Medical Journal*.

HAMMOND ON SPASMODIC STRICTURE.—Referring to the peculiar condition which Sir James Paget has called stammering of the bladder, Dr. Wm. A. Hammond gives an interesting reminiscence. He says,—

"It is undoubtedly due to a spasm of the organic muscular fibres of the urethra and of the compressor urethræ muscle. It is exactly similar to the condition sometimes excited in nervous individuals by attempts to pass a bougie. The canal closes tightly against the point of the instrument, but a steady gentle pressure continued for a few minutes usually overcomes the obstruction. The remarkable fact, one which all physicians and surgeons have observed, is that the condition should be excited by mental influences and certain associations of ideas. I have known men who could not urinate when asked to do so, unless the water above the urinal were allowed to run at the same time, so that the idea of a flowing stream should be excited in their minds. The fact is common enough, and it is one well known to people generally. I recollect when a college boy being witness to a wager between two men that one of them could not urinate in the other's hat. A ring of curious spectators was formed around the individual desirous of exhibiting his powers of urination; he had a full bladder, he said; he prepared himself, held the hat of his adversary in his hand, but not a drop would come, and the more the lookers-on laughed and cheered, and the more he strained, the less real ability he seemed to exhibit. At last the referee announced that the time, a half an hour, was up, and he lost his bet without having passed a single drop. Five minutes afterwards, in the solitude of a woody lane, he evacuated over a pint."—*New York Medical Gazette*.

ERYTHRASMA.—In his service at the Hospital St. Louis, Dr. Ernest Besnier showed a patient affected with a disease little known and yet somewhat frequent, and which may easily give rise to errors in interpreting it. It consists of spots having the appearance of intertrigo, but presenting a certain amount of pigmentation. The spots are more or less rounded, or in the form of disks, and occupy at times quite an extensive surface. They are seated in the axillæ, groins, scrotum, and chiefly at all those points where intertrigo occurs. In those parts which are outside of folds they present a pale-red color, which has given the disease its name,—erythrasma. There is but little itching, without intense reaction, and it is on this account that it is seldom observed, the patients not attaching sufficient importance to it to occupy themselves about it. The author considers it a parasitic disease, whose

parasite, of an extraordinary tenuity, can only be observed by means of an objective by immersion, and called *Microsporon minutissimum*. Histological examination shows that in the horny layer of the epidermis there is contained a very large number of these cryptogamic elements. The coloration of the spots is due not only to the extreme abundance of the parasite which infiltrates this layer, but also to the presence of pigment-granules mixed with spores, which is the result of cutaneous irritation, and of chronic pruritus also. The affection is not a grave one, yet it is important to recognize it, and not to mistake it for pityriasis versicolor, to which it bears some similarity.—*Medical Review*.

PROLONGED SUSPENSION OF VITALITY FOLLOWING THE HYPODERMIC INJECTION OF MORPHIA AND ATROPIA.—A woman, 37 years of age, upon whom an operation had been performed for the removal of the left ovary, at noon, four days after the operation, became very excited and disturbed the dressings of the wound, when twelve minims of the hospital solution of morphia and atropine were injected. This represented three-fifths of a grain of morphia and one-fortieth of a grain of atropine. At one o'clock she became livid, and the nurse by mistake injected another five minims of the solution before the house-surgeon arrived. When he came, he injected ammonia, gave brandy enemata, used artificial respiration, and applied electricity, without effect. At 4 P.M. the nurse was laying the woman out, but the doctor came in and determined to proceed with artificial respiration, galvanism, and frictions. Up to 5.30 P.M. only a spasmodic breath every quarter of an hour, and a feeble beat of the pulse every now and then, could be detected. At 7 P.M. a nurse poured some coffee into the patient's mouth, and she suddenly fell back as if dead, but by turning her over on her side she was made to vomit. By nine o'clock the respirations were beginning to be more frequent and the pulse stronger; she soon became conscious after this, and recovered perfectly.—Dr. Alexander, in the *Boston Medical and Surgical Journal*.

TRANSIENT ANÆSTHESIA WITH BROMIDE OF ETHYL FOR MINOR OPERATIONS.—Dr. A. E. Prince, of Jacksonville, Illinois, recommends ethyl bromide, not as a substitute for chloroform and ether, but for its primary effect, it having a period of primary anæsthesia extending from fifteen seconds to two minutes. This makes it of special value for short operations, such as pulling teeth, opening a felon, stretching the sphincter ani, or for diagnosis, and, if the effect is desired to be continued, chloroform or ether may be used. It is as a substitute for nitrous oxide gas that he especially prizes the ethyl bromide.—*St. Louis Medical and Surgical Journal*, October, 1883.

LOCOMOTOR ATAXY NOT TABES DORSALIS.

—Matters seem to have rapidly reached a height towards which they have for some time been tending. Before recent years it was something to know that locomotor ataxy was associated with, if not caused by, posterior sclerosis. A fresh and important step in advance, for which we are indebted to Pierret, was made when that able observer declared that the only region sclerosis of which was necessary for the production of the signs of locomotor ataxy was the postero-external column, or "root-zone" of Charcot. Many clinical investigators have shown that the most characteristic symptom of "tabes dorsalis" may be long or even altogether absent,—that the awkward gait might never make its appearance. Coetaneously with the propagation of these doctrines,—by Buzzard, Gowers, and others,—Pierret, and afterwards Déjérine, were upholding the doctrine that most, if not all, the symptoms of "tabes dorsalis" might be due to multiple peripheral neuritis. In a partially successful case of nerve-stretching for locomotor ataxy by Langenbuch, the patient died at a second operation, apparently from the administration of chloroform. It was found that no changes existed in the spinal cord. Though the peripheral nerves do not seem to have been examined, the instance is of importance in the light of the latest researches of Déjérine. Disturbances of sensation and disorders of locomotion, apparently absolutely identical with the signs of classical tabes dorsalis, have now (*La France Médicale*, October 30) conclusively been shown to have existed in two cases in which the spinal cord, spinal roots and ganglia were perfectly healthy, but in which the peripheral nerves exhibited the changes ascribed to traumatic parenchymatous neuritis.—*Lancet*.

 MISCELLANY.

A STRANGE BEQUEST.—*The Medical Press* details the sad circumstances attending the death of M. I. Khan, M.R.C.S., of University College Hospital, who committed suicide by taking poison. The deceased was an Afghan, who, after successfully pursuing medical studies in England, and obtaining a double qualification, found his color and nationality a bar to obtaining employment there, and, growing discouraged by disappointment, and being without resources, he at length put an end to his life. In a letter addressed to the coroner Mr. Khan expounds his views as to suicide, which he justifies in himself; and then makes a strange bequest of his body for dissection at University College, a request being added that his skeleton shall be preserved in the museum.

The story is a very sad one, and if, as is said to be the case, the offer of the deceased is accepted by University College, his skeleton will be not the least interesting object in the collection.

BENZOPHENID.—In a recent trade report Messrs. Gehe state that they have taken an opportunity, while saturating a large quantity of benzoic acid sublimed from resin, to isolate the adherent body, upon the presence of which depends the brown color that is now one of the official characters of benzoic acid in the German Pharmacopœia. It is believed to be "benzophenid," and when treated with alkalis breaks up into benzoic acid and phenol (*Pharmaceutical Journal*, September 29). Some physiological experiments made with the substance by Dr. Robert, of Strasburg, seemed to show, however, that a similar decomposition does not take place in the body when benzophenid is administered internally; at least, no increase of phenol has been detected in the urine; in this behavior it resembles chloral hydrate, which does not yield chloroform. Rabbits did not appear to be affected by it when administered in doses of ten grammes, and an alcoholic solution injected under the skin of a frog produced no perceptible symptoms.—*Lancet*.

FATAL HEMORRHAGE FOLLOWING EXTRACTION OF A TOOTH.—A young man, 26 years of age, of English birth, had the right superior second molar tooth extracted on account of its badly-decayed condition. Constant oozing from the socket followed, and the patient died on the eighth day. He had had teeth drawn previously without serious hemorrhage. The family history showed a marked hemorrhagic diathesis, confined to male members, his father, two uncles, and a cousin having died of hemorrhages from wounds. The patient refused medical or surgical treatment on conscientious grounds, as he was of the Mormon faith, or his life might have been saved.—*The Dental Cosmos*, November.

SUPPRESSION OF QUACKERY.—At the annual meeting of the New York County Medical Society, held October 22, the sum of three thousand five hundred dollars was appropriated for use during the ensuing year in prosecuting illegal practitioners. The report of the proceedings of last year showed that the proper officers of the Society had performed their unwelcome and often disagreeable task with satisfaction, and had found, with few exceptions, that they had the co-operation of the court in carrying out the law.

SALICYLIC ACID PASTE IN ECZEMA.—

R Acidi salicylici, gr. x;
 Petroleol., ʒiv;
 Pulv. zinci oxidi,
 Pulv. amyli, aa ʒij. M.

Rub up into a smooth paste.

VAN HARLINGEN.

GOOD ADVICE, BY THE EDITOR OF *The Planet*.—Life may be taken away at any moment, even while we are sitting in our room, where we would think death could not possibly reach us. Property may be lost by fire, insurance only partially remunerating us; but as regards money, good management evidently may save from ruin; but how many people conceive what constitutes good management? Speculation and extravagance in living are our two pursuing devils, who are ever seeking for whom they can devour.

If we are to remain with our confrères and live, let us attend to our church duties, to rules of hygiene and temperance, let us curb our tempers, try to be agreeable towards everybody, bring up the family in decency and propriety, and, lastly, avoid extravagance.—*The Planet*, November 15.

NOTES AND QUERIES.

THE BALTIMORE CORRESPONDENT'S ANSWER.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

SIR,—I have just returned to this city, after a month's absence, and find, on looking over late numbers of the *Times*, that my letter on "Medical Education in Baltimore" has given great offence in a certain quarter. Had Drs. Monroe and Byrd, in replying to my strictures on the methods of the Baltimore Medical College, confined themselves to correcting alleged misrepresentations, the necessity for writing this letter would not have arisen; for the article in the Educational Number of the *Times* contained no misrepresentations.

In the letters of Drs. Monroe and Byrd, however (*Times*, November 3, p. 118), appear several statements which demand my attention, inasmuch as they call in question my veracity and reliability as a correspondent of such a reputable journal as the *Times*, and hence I ask sufficient space to place the institution defended with such wealth of quotation and lavish display of italics by Dr. Byrd in its proper light.

Dr. Monroe says the Baltimore Medical College was organized to graduate a superior class of doctors,—to quote the words of the catalogue, "Not to make many doctors, but good and competent ones;"—and then goes on to enumerate the methods by which this result shall be attained.

In this connection, I would merely remark that certain circumstances which have come to my knowledge have convinced me that they have not met with any marked degree of success in carrying out their high ambition.

Dr. Byrd objects to my statement that the members of the faculty of this institution "should likewise be professors of Christianity." He says that the charter "requires that all its professors and teachers shall declare their belief in the Christian religion ere entering upon their respective duties." I can really see no difference in meaning between the two versions, except that mine seems the clearer statement.

Drs. Monroe and Bird both deny that the establishment of a pulpit was contemplated. My information was derived from the only morning paper here which thought it matter of sufficient interest to notice the last introductory exercises. The report, so far as I was aware, had not been contradicted. And now, with reference to the number of graduates of the Baltimore Medical College practising in West Virginia. Drs. Monroe and Byrd both know—in spite of their assertion to the contrary—that only one of the graduates of this school is practising in that State by warrant of law, and he not by virtue of his diploma. If any other graduates of the Baltimore Medical College are practising medicine in that State, they are doing so surreptitiously and in defiance of the law. Drs. Monroe and Byrd know these facts as well as I do.

Dr. Byrd accuses me of "absolute falsehood." I have shown that my statements were but the exact truth. I can assure Dr. Byrd that denouncing a statement as untrue does not make it so; and, if he will accept a little advice from me, I would suggest to him to be sure of his own facts before he again undertakes to question the accuracy of those of

GEORGE H. ROHÉ.

BALTIMORE, November 24, 1883.

RESOLUTIONS UPON THE DEATH OF DR. J. MARION SIMS.

"At a called meeting of the Faculty of the Baltimore Medical College, held on the 27th of November ultimo, the following preamble and resolutions were offered by Prof. Harvey L. Byrd, and adopted unanimously,—viz.:

"Whereas, We have learned with profound sorrow and deep regret of the death of Dr. James Marion Sims, which sad event occurred in New York City on the 13th instant; and whereas, It behooves us as a corporation and as individuals to bear testimony to his brilliant career and great achievements, which have enriched the profession of medicine so much, especially in the knowledge and skill he so successfully applied for the relief of suffering womankind; be it, therefore,

"Resolved, That we deplore the decree of our Heavenly Father which called from the midst of the living James Marion Sims, and from the profession which he so much honored, and thus stilled forever the cunning hand that had wrought relief to so many suffering women in both hemispheres.

"Resolved, That these proceedings be spread upon the minutes of this meeting, and that a blank page of the records of this corporation be inscribed with his name and the dates of his birth and death; and that a copy of the foregoing be forwarded to his bereaved family, with the assurance of our sincere sympathy and condolence in their irreparable loss.

"Resolved, That the editors of the *Medical Record* and the *Philadelphia Medical Times* be respectfully requested to publish the same."

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM NOVEMBER 24 TO DECEMBER 8, 1883.

WOLVERTON, WILLIAM D., MAJOR AND SURGEON.—Assigned to duty as post surgeon at Washington Barracks, D.C. Paragraph 7, S. O. 222, Department of the East, November 27, 1883.

BROWN, PAUL R., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty in the Department of Arizona. Paragraph 4, S. O. 273, A. G. O., November 28, 1883.

CARTER, W. F., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Washington Barracks, D.C., to take effect at the expiration of his present leave of absence, and assigned to duty at Little Rock Barracks, Arkansas. Paragraph 4, S. O. 224, Department of the East, November 30, 1883.

MERRILL, JAMES C., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in the Department of the East, and assigned to duty at Columbus Barracks, Ohio. Paragraph 4, S. O. 270, A. G. O., November 24, 1883.

SHUFELDT, R. W., CAPTAIN AND ASSISTANT-SURGEON.—Now on sick-leave, relieved from duty at Jackson Barracks, New Orleans, Louisiana. Paragraph 3, S. O. 224, Department of the East, November 30, 1883.

BREWSTER, WILLIAM B., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Extension of leave of absence granted September 15, 1883, further extended two months. Paragraph 4, S. O. 271, A. G. O., November 26, 1883.

MADDOX, THOMAS J. C., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Granted leave of absence for two months. S. O. 136, Department of the Missouri, November 24, 1883.

RICHARD, CHARLES, FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Jackson Barracks, New Orleans, Louisiana. Paragraph 2, S. O. 224, Department of the East, November 30, 1883.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FROM NOVEMBER 24 TO DECEMBER 8, 1883.

Medical Inspector D. KINDLEBERGER to be relieved from duty on the Retiring Board on December 9.

Medical Inspector D. KINDLEBERGER ordered to the U.S. steam-ship "Hartford," Pacific Station, per steamer of the 10th inst.

Medical Director A. L. GHON detached from duty as member of Board of Inspection and Survey on the 15th inst., and placed on waiting orders.

Medical Director GEORGE PECK ordered to report on the 15th inst. as member of the Board of Inspection and Survey.